

DECLARATION

This research thesis is my original work and has not been presented

A DESCRIPTIVE ANALYSIS OF THE PERCEPTION OF IMAGES

IN SELECTED POSTERS BY CONTEMPORARY KENYANS:

Kahare Miano

A CASE STUDY OF MASAKU DISTRICT AND NAIROBI AREA

This thesis has been submitted for

examination with our approval

as University Supervisors

By



KAHARE MIANO

Senior Lecturer

Fine Art Department

A Thesis Submitted in Fulfilment of the degree of

Master of Arts in the Department of Fine Art at

Kenyatta University

Nairobi, Kenya

Mr. Kahare Miano  
Senior Lecturer  
Fine Art Department  
Faculty of Fine Arts  
Kenyatta University

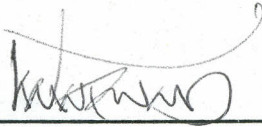
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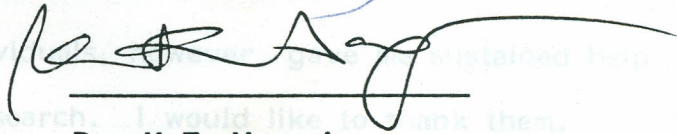
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**Kahare Miano**

This thesis has been submitted for examination with our approval

as University Supervisors



**Dr. K.F. Msangi**

Senior Lecturer  
Fine Art Department  
Faculty of Arts  
Kenyatta University



**Mr. John Kariru**

Senior Lecturer & Chairman  
Fine Art Department  
Faculty of Arts  
Kenyatta University

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The Problem  
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I also would like to thank my colleagues - Kang'ara wa Njaambi, Mwaniki wa Gichia, Kanyiva Mang'eli and Gikonyo Maina for their brotherly and sisterly support and encouragement over the duration of the study.

Research was conducted amongst the Akamba peoples of Mbooni in Masaku District and the residents of Kangemi in Nairobi. I thank them sincerely for their cooperation.

I am grateful to Marian Mohamed for typing this thesis.

Procedure  
Finally, I would like to register my appreciation for the help from my research assistants - Kago, Katungwa and Matee and the moral and material support and understanding of my parents over the whole period of the research.

- Mtu Pweke Ni Uvundo -

## ABSTRACT

The Problem

Graphic communication in print media form that is available in Kenya sometimes is not sensitive to the perceptual abilities or aesthetic preferences of the public. Its importance in today's world can not be overstressed.

The extent to which the Kenyan public is able to identify images in posters as well as gather information from same is often anybody's guess.

Hence the need for regular analyses of the various poster designs that various institutions have been using. For this particular research, posters designed for the Ministry of Health, the United Nations body, selected consumer products and for purely decorative design were used to analyse the problem.

Procedure

The researcher selected fourteen posters that constituted as large a variety of designs as possible and an interview-schedule was designed.

This was followed by the random selection of people from an urban and a rural environment. There were two hundred people from Nairobi area and two hundred from Kikima in Masaku District. They were categorised on the basis of five factors, namely,

- a. age-group;    b. formal educational level;    c. sex;
- d. occupation and    e. physical environment which the researcher considered an important factor that could easily be overlooked.

Data gathered from the field sought to determine whether these factors had a significant bearing on the peoples' ability to correctly interpret information in the variety of posters.

#### Findings

The data gathered was analysed on the basis of four basic skills exhibited by the interviewee.

- a. Interviewee's ability to identify pictorial image.
- b. Interviewee's ability to read and understand text in English and Kiswahili.
- c. Interviewee's ability to see colours.
- d. Interviewee's ability to interpret posters correctly.

For the first three skills, the influence of formal educational level was not significant. However, interpretation of the posters was very dependent on the interviewee's formal educational level and previous experience with visual material either formally or informally.

Another interesting observation was that ability to identify pictorial image, colour and text did not always reduce uncertainty in the interviewee, as the researcher had expected.

## Conclusions

The study has, indeed, thrown some light on the abilities of the Kenyan public to interpret information in posters.

## Acknowledgements

We can expect the public that has a formal education of secondary school level to interpret, correctly, information carried in posters that have non-representational images even if they are poorly designed. For those interviewees without a secondary school education but who were able to interpret it, their past experience with visual material often made it possible for the message to get through.

## 1.0 INTRODUCTION

Since the majority of the Kenyan population do not have secondary school level education at present, graphic designers must make posters that use clearer and simpler imagery that uses less text if they are to reach them effectively.

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## 1.0 INTRODUCTION

## 1.1 THE PROBLEM

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## 1.0 INTRODUCTION

### 1.1 THE PROBLEM

It is the contention of the researcher that graphic communication in print media form sometimes does not give due regard to the perceptual abilities or the aesthetic preferences of the public.

To what extent people are able to identify images in posters and how well information in these posters is interpreted is often taken for granted. The increasing reliance on the printed image to supplement or sometimes to even substitute the spoken word has meant that a regular analysis of graphic conventions in usage becomes necessary. The problem of misinterpretation of visual images by the public as a result of unfamiliarity with symbols, the ambiguity of symbols or inability to relate an abstract idea to reality, is real. The graphic designer has a moral obligation to sensitize himself to this problem. There are several ways to address this problem.

This study proposes to analyse some posters in current use by selecting subjects from two areas randomly and asking them to identify images as well as interpret the content within them.

## 1.2 NEED FOR THE STUDY

Few studies have, in recent times, been carried out in Kenya to assess the effectiveness of the poster for specific target audiences. It is the opinion of the researcher that not enough data on the abilities of contemporary Kenyans to read visual images in posters, particularly those intended for education, is available.

It is hoped that data on the actual difficulties encountered by the subjects in this particular study, based on identification of images and interpretation of content, can be a window to the extent of difficulties experienced by the public in general.

Designers of graphic communication media such as information posters may then be able to develop further a visual vocabulary based on a balance of professional parameters and the ability of the public to adapt and consume images using graphic conventions in current usage.

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<sup>1</sup> Alan C. Holmes, A study of Understanding of Visual Images in Kenya, (London Overseas Visual Aids Centre, 1963), p.2

<sup>2</sup> *Ibid*, p.5

### 1.3 OBJECTIVES OF THE STUDY

The researcher intends to:-

Holmes<sup>1</sup> attempt to document the responses of rural people to simple images on health education may not have been entirely successful mainly because the images used for that particular study were over simplified. Holmes recognises this and asserts that improper designing '.... will reduce comprehension and may produce confusion and distraction.'<sup>2</sup>

Posters in current use will be acquired and used as a basis of enquiry.

The researcher's interest in the poster as a viable visual medium for study has been inspired by:

- i) The relatively cheap means of mass producing the medium.
- ii) The potential for easy and quick distribution of the medium.
- iii) The potential for adaptability of the medium as a decorative art form and hence its acceptability.

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<sup>1</sup>Alan C. Holmes, A study of Understanding of Visual Images in Kenya. (London Overseas Visual Aids Centre, 1963) p.3

<sup>2</sup> Ibid , p.5

### 1.3 OBJECTIVES OF THE STUDY

#### 1.4. BASIC ASSUMPTIONS

The researcher intends to:-

a) administer an interview-schedule to the selected subjects in order to gather information on four aspects of each poster. These aspects are:-

- i) Correct responses to colour
- ii) Correct responses to images
- iii) Correct responses to text
- vi) Correct overall interpretation

#### Basic Assumption One

b) identify factors that may have inhibited the perceptual abilities of the subject. The factors or dependent variables that were isolated for study are:-

- i) Formal education level
- ii) Sex
- iii) Age Group
- iv) Occupation
- v) Physical environment

#### Basic Assumption Two

The data between the two groups of subjects, that is, the rural group and the urban group will be compared as an attempt to establish any discernible pattern with respect to perceptual abilities. It is through identification of colour, images and the ability to read text that an individual is able to put meaning to a poster or to interpret it correctly. For this reason, correct identification of the three was seen as an important pre-requisite of interpretation

#### 1.4. BASIC ASSUMPTIONS

##### Basic Assumption Three

From the literature survey, the field research and the researcher's own knowledge and experience of the art/design scene in Kenya, the following basic assumptions formed the basis upon which the study was undertaken.

##### Basic Assumption Four

There is little disparity in the abilities of the rural subjects with different occupations to interpret the posters correctly.

##### Basic Assumption One

There is little disparity in the abilities of the urban subjects with different formal educational levels to interpret the posters correctly.

##### Basic Assumption Five

There is little disparity in the abilities of the urban subjects in different age-groups to interpret the posters correctly.

##### Basic Assumption Two

##### Basic Assumption Six

There is little disparity in the abilities of the rural subjects in different age-groups to interpret the posters correctly.

##### Basic Assumption Seven

There is little disparity in the abilities between male and female subjects of the urban environment to interpret the posters correctly.

Basic Assumption Three

There is little disparity in the abilities of the urban subjects with different occupations to interpret the posters correctly.

Basic Assumption Four

There is little disparity in the abilities of the rural subjects with different occupations to interpret the posters correctly.

Basic Assumption Five

There is little disparity in the abilities of the urban subjects in different age-groups to interpret the posters correctly.

Basic Assumption Six

There is little disparity in the abilities of the rural subjects in different age-groups to interpret the posters correctly.

Basic Assumption Seven

There is little disparity in the abilities between male and female subjects of the urban environment to interpret the posters correctly.

### Basic Assumption Eight

There is little disparity in the abilities between male and female subjects of the rural environment to interpret the posters correctly.

### Basic Assumption Nine

There is little disparity in the abilities between the urban and rural subjects to interpret the posters correctly.

## 1.5 DEFINITION OF TERMS

Certain terms that appear in this report have been given definitions that are limited to the context of the study.

### Aesthetic Preference

Pertaining to the selective judgement of the quality of an art object by preference based on acquired tastes. An appreciation of the elements of form like colour, line, shape or texture that are visually stimulating.

### Graphic Convention

Pertaining to an established and accepted style of

representing either the physical world or abstract ideas in two dimensions based on distinctive characteristics of the images.

### Contemporary

Pertaining to or characteristic of the present time with specific reference to the people in existence at the time of the study.

### Dichotomous

Pertaining to the division of a class into two mutually exclusive lower classes. Graphic Design has been divided into two for the purposes of the study. These two classes are :-

- i) Graphic Design for information
- ii) Graphic Design for commerce

### Non Discursive Communication

#### Extraneous Variable

Pertaining to factors external to the other controlled or functional variables. These include hunger, fatigue, thirst and distractors prevalent in an uncontrolled environment.

#### Graphic Convention

Pertaining to an established and accepted style of

representing either the physical world or abstract ideas in two dimensions based on distinctive characteristics of the images.

### Graphic Design

Pertaining to the manipulation of the elements of form in two dimensions, using any of the variety of graphic conventions, with the primary aim of informing and/or influencing.

### Graphic Mode

Pertaining to a particular scheme or system of conventional usage. In this study, used interchangeably with graphic convention.

### Non Discursive Communication

Pertaining to non-verbal communication. In this study refers exclusively to the visual image in printed visual media like the posters.

### Perception

Pertaining to the ability to mentally grasp or recognise an idea, inherent within a pictorial design, and interpret it accordingly.

### Photogram

Pertaining to a photograph that is manipulated by means of a technical process into a striking flat image without details. The image is characterised by either a consistent transparency or opacity.

### Print Media

### Photomontage

Pertaining to a composition of more than one photographs in order to articulate an idea based on the combination of different images.

### Pictorial Serial

Pertaining to a pictorial story portrayed by a series of successive instalments of diagrams.

### Popularised Culture

Pertaining to any form of cultural activity and product which is by one criterion or another regarded to arouse a relatively widespread interest or achieve a high degree of consumption in any given society. More precisely, while the term popular connotes a type of culture of a more static character, hence, with a weak hardly noticeable historical dimension ,

### Psychometric

the term popularised<sup>3</sup> connotes the opposite, namely a type of culture which is both widespread and widespreading as a result of organised social action.

### Print Media

Pertaining to a visual means of communication made possible through the use of a combination of different pictorial images and text. This is usually on paper.

### Rural

Pertaining to the regions of the country that are in the interior. In Kenya the main economic activities centre around agriculture in a typical rural environment. The dominant community is usually indigenous to the environment.

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### Silhouette

<sup>3</sup>C.W.E. Bigsby, Approaches to Popular Culture object (London: Edward Arnold Publishers Ltd; 1976) in solid p. 42 black or any other dark colour against a lighter background.

### Psychometric

Pertaining to factors governing responses to a stimulus. In this study these are age-group, occupation, sex, environment and formal educational level.

### Psychophysical

Pertaining to the stimulus being experienced. In this study it is the poster.

### Rural

Pertaining to the regions of the country that are in the interior. In Kenya the main economic activities centre around agriculture in a typical rural environment. The dominant community is usually indigenous to the environment.

### Silhouette

Pertaining to a picture of a figure or other object drawn, painted, photographed or printed in solid black or any other dark colour against a lighter background.

### Urban

Pertaining to the town or city as the focus of

Subject

Pertaining to those individuals from the two different environments that were interviewed for the purposes of the study. It is assumed, by the researcher, that these individuals represent to a certain degree the contemporary Kenyan public.

Symbolic

Pertaining to visual images which suggest something beyond the images themselves. Elements of form like colour are sometimes used effectively to this end.

Target Audience

Pertaining to a specifically defined section of the viewing public on the basis of their ability to perceive the design as intended by the designer.

Typographic

Pertaining to a graphic mode that relies on text alone without an accompanying pictorial illustration.

Urban

Pertaining to the town or city as the focus of

economic activity and characterised by the presence of a variety of ethnic communities. Many urban residents are employed within or around the periphery of the town.

#### Viewing Public

Pertaining to the people who are subjected, consciously or unconsciously, to visually experience visual media intended for graphic communication.

#### Visual Communication

Pertaining to a non-verbal language dependent on visual images. The extent of communication depends on how well the images are perceived.

#### Visual Media

Pertaining to an intermediate agency, means, instrument or channel used to cause a visual experience. Some examples of these include magazines, films and posters.

## 1.6 CHOICE OF STUDY AREAS AND RESEARCH ASSISTANTS

The foremost impediments to a more liberal choice of study areas were the limited funds available and the time in which the researcher was expected to complete the research. For these reasons the researcher limited himself to one sub-location from the rural area and one ward from the urban area.

Due to the nature of the study and the elaborate data collecting procedures the researcher thought it necessary to select areas from which competent research assistants were available and willing to work for long periods for a very modest reward.

During the pilot study the researcher travelled in Kangemi Ward to determine whether or not it would be a viable study area. It turned out that the ethnic community with the largest representation was the Agikuyu. However, there was a reasonable representation of other ethnic communities like the Abaluhya, the Abagusii, the Luo, and even the Akamba. A big proportion of the Abaluyha and the Luo residents of Kangemi work as either watchmen, gardeners or house assistants in the surrounding peri-urban residential areas like Lavington, Loresho, Westlands and Spring Valley. Kangemi has, thus, itself become sufficiently urbanised to constitute an urban area.

The researcher acquired the services of a research assistant from around Uthiru - a small centre north of Kangemi, for the purposes of administering the interview schedule and collecting data from Kangemi. This research assistant is a librarian by profession at the University of Nairobi. His keen interest in the study coupled with his good command of the Kikuyu and Kiswahili languages were qualities the researcher regarded as being indispensable to the collection of data in that locality. The research assistant was able to elucidate well to the subjects the aims of the research.

The research assistants acquired for the data collection from rural subjects were both undergraduate students in the Fine Art Department at Kenyatta University. They were well acquainted with the aims of the study and were willing to assist the researcher during their vacations. Their ability to communicate articulately in the Kikamba and Kiswahili languages was an important asset in facilitating data collection. The choice of Masaku District was influenced by the limited funds as well as the availability of competent research assistants.

## 2.0 REVIEW OF RELATED LITERATURE

### 2.1 GRAPHICS AS A VISUAL LANGUAGE IN NON-VERBAL COMMUNICATION

Few studies have been undertaken to establish patterns or relationships between the psychophysical and the psychometric factors which :-

i) Influence the capacity of the individual to interpret two-dimensional graphic conventions used for visual information.

ii) Influence the aesthetic preferences for existing graphic modes that are used to represent visual information in contemporary Kenya.

Most of the studies in the visual arts tend to favour the study of the traditional African arts as opposed to the more popularised visual art forms. This has resulted in the scarcity of literature in the area of graphic communication. Scholars appear to be more concerned, and justifiably so, with cultural history and the desire to authenticate information of doubtful quality!....since the written sources for African cultural history until quite recent times were also the work of outsiders. They were written by travellers or missionaries...who often did not know the local culture

very well and were sometimes trying to suppress it.<sup>1</sup>

The literature review is thus limited by this marked lack of published works in the specific areas of graphic communication as a social phenomenon, as a symbolic form of expression and as a non-verbal language of communication.

In reviewing related literature, the researcher had in mind the following broad areas as his basic points of reference:

- i) general views on graphic communication as a visual language in non-verbal communication.
- ii) graphic communication and its significance as a social phenomenon.
- iii) identification of one graphic visual form that is widespread and viable for study.
- iv) discussion of some related studies.

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<sup>2</sup> J.W. Cataldo, Graphic Design and Visual Communication

(Sorantan: International Textbook Company, 1966) p. 4

<sup>1</sup> C.W.E Bigsby Approaches To Popular Culture

(London: Edward Arnold Publishers Ltd, 1976) p.72

Cataldo states that a visual designer has to be conversant with related disciplines....such as sociology, psychology, including visual perception and advertising research methodology, in order to communicate effectively with the public.

The rapidly changing modes of visual communication have made it obligatory for the graphic designer to regularly assess the perceptual abilities, of the public targeted to consume the visual information.

One method of assessment is the empirical-oriented method of selecting certain modes in use and presenting these to an audience that was intended as a target group. Hence, the role of the graphic designer in the vast and complex field of visual communication assumes a unique importance.

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<sup>2</sup>J.W. Cataldo, Graphic Design and Visual Communication (Sorantan: International Textbook Company, 1966) p.4

<sup>3</sup> Ibid, p. 124

<sup>4</sup> Ibid, p. 37

Face to face communication is undoubtedly the most effective communication device to increase social cohesion.<sup>3</sup> However, this is not always possible and neither is it always effective.

verbal language has its limitations and it may be argued that printed verbal language is more effective as a communication instrument when it is combined with pictorial material. Such a hypothesis does not reject the importance of verbal language as our most widely used symbol system. This discussion, however is chiefly concerned with those areas of thought and feeling where words, phrases and sentences are inadequate...It is evident that a discursive language as a communication instrument cannot do a complete job; its inadequacies must be compensated for by other non verbal means.<sup>4</sup>

The combined effect of the vast amount of graphic presentation and the growing dependence on visual media by the public has enhanced the need for a comprehensive documentation of various events and activities in discernible visual language. This visual language is often quite different from the verbal techniques.

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<sup>3</sup> Ibid, p. 124

<sup>4</sup> Ibid, p. 37

<sup>5</sup> Ibid, p. 4

Graphic designers, as this vast amount of visual material suggests, often do not have consensus on the affective needs of the human personality. For example, the role that private opinion, emotion and perceptual experience play in the public's reaction to visual communication efforts may, quite inadvertently, be overlooked.

Lack of an adequately developed aesthetic sensibility in both the designer and the receiver of visual information will always be a barrier to effective communication. This has pre-empted the development of standards and values for a visual communication system that is derived from or motivated by assumed perceptual abilities and aesthetic preferences of any target audience.

The graphic designer, therefore, ought to assume a critical role in the establishment of such a system because graphic communication is intended to manipulate, persuade, inform and educate the public. It, thus, follows that graphic design is essentially a social art and by this definition the designer must assume the moral and ethical responsibilities of public service.<sup>5</sup>

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<sup>5</sup> Ibid, p.4

A variety of methods of presenting visual information are at the designer's disposal when approaching the problem of presenting visual information. Usually it is not the actual problem but the idea<sup>6</sup> for its solution which dictates the choice of method. The determining question usually is; what are we trying to say or sell and to whom?

There are many possibilities in graphic communication where symbols alone diagnose an issue more succinctly than is possible with a verbal language. There is also the aspect of graphic communication which combines symbols and text as an evocative display unit. This would seem to divide graphic design into two mutually exclusive classes:-

- i) Information or fact graphic design which is not concerned with images as an end in themselves but with the effectiveness of these images to articulate precise information.

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<sup>6</sup> Jerzy Karo, Graphic Design: Problems, Methods and

Solutions. (New York: Van Nostrand Reinhold Company Inc. 1975) p.30

ii) Flavour graphics are essentially concerned with decorative qualities and the images may be an end in themselves.

The possibilities of presentation can be classified on the basis of the ideas used. Some of these, characterise the graphic design that is in current use in Kenya. The most common is the direct approach. This is an effective means of communication because of its straight-to-the-point immediacy. The visual symbol or visual language is simple and uncluttered by detail or elaboration. Graphic techniques employing the photogram or photograph are used for this kind of presentation. The visual image does not deviate from its intended purpose of presenting information in the simplest way possible.

The dramatic approach is used as the single most effective way of highlighting a serious theme. Its use is thus limited as regards scope and subject. The power of the dramatic effect results from it being close to the truth .... and when related to a real issue or potentially dangerous situation, it tends to create unease in the audience.<sup>7</sup>

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<sup>7</sup>Ibid, p.41

Fictional ideas and subject matter are also frequently expressed using the dramatic effect usually because they are not directed at any particular target audience.

The emotive approach arises when the intention is to play on the guilt complexes arising from neglect, indifference, failing in various duties or responsibilities, laziness or any other undesirable traits. It appeals for positive response.

The typographic approach is something said to be too

The Impact method or approach is best suited to a solution that requires heavy emphasis. Such emphasis can be achieved by the use of close-up, isolation, magnification, contrast and the unexpected. The

impact is created by the element of the unexpected. More than anything else it is used for advertising pharmaceutical medicine. Together with the emotive method it is also used for social and political purposes.

It demands a well thought out balance between the acceptable and the unexpected.

It as an integral part of the whole design, rather

The use of symbolic visual language is considered to be the oldest form of visual communication. The semi-realistic pre-historic drawings of Egypt were the fore-runners of the ideographic sign-alphabet in use today. For many

people it is a common language, cutting across social strata and educational differences. A symbol of some common experience or emotion provides a universal means of disseminating ideas and exchanging information. One such symbol of common experience is the Fir tree which is identified by many Christians as symbolising Christmas Day.

The typographic approach is something said to be too predictable, dry and creatively unexciting both in itself and as a constituent of graphic images. In many instances, it is typography which threads together the images. This is possible either by using the appropriate typeface from the existing range of conventional typefaces or by creating a new typeface. The appropriate use of typeface is limited only by the creative ability and imagination of the designer. Many good designers are spoilt because the typography is treated as an after thought. This problem can be overcome by treating it as an integral part of the whole design, rather than as an isolated aspect of graphic design. This method is appropriate for any subject matter.

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<sup>8</sup> John Parry, The Psychology of Human Communication (London: University of London Press Ltd., 1967) p.115

Failure to communicate visually may come about not because information is insufficient, but because the designer is unable to express what he/she has to say or the audience is unable to interpret the 'message' in the way that is intended. The reasons for these failures frequently have their roots in the psychological and sociological orientation of one or both parties.

In some instances the designer has a tendency to present the affective message with the assumption that there is adequate correlation between appearances or the symbols used and reality. In doing so he/she ignores the fact that a great deal intervenes between the outside world and the audience's impressions of it.

One communication theory<sup>8</sup> postulates that content information is not measurable, quantifiable or scientific enough to warrant statistical measurement as is possible with sign information (mathematics or disciplines with a mathematical character). This arises from the assertion that content information is connotative and that its acquisition does not necessarily reduce uncertainty in the subject. It follows that attempting to attach a

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<sup>8</sup>John Parry, The Psychology of Human Communication (London: University of London Press Ltd., 1967) p.45

statistical value to content information expressed through visual symbols may be rather impractical.

Visual information expressed by use of some graphic conventions may sometimes have different symbolic meanings to different recipients in a given audience or given audiences. This implies that the images may possess a variety of attributes or connotations. A sign possesses a denotation but not a connotation; it has a function but no attributes whereas an image or aspect of an image can possess different symbolic meanings or attributes. Therefore, an image with a rich connotation is likely to give rise to ambiguity. In using it, there is no guarantee of the same attributes being attached to the images by both designer and recipient. The intended meaning may as a result be lost.

In spite of this, there are aspects of graphic communication efforts that are quantifiable if only for analytic purposes.

It is possible to disintergrate a pictorial design into its basic components like colour texture and shape and analyse it on the strength of predetermined criteria.

Any visual medium of communication that possesses a

wide range of artistic possibilities to express an idea or represent a theme can be said to have an aesthetic essence; apart from the capacity to inform, it causes pleasure and admiration for itself.

Though it is possible to see a pattern in the responses to aesthetic constructions, aesthetic experiences must be defined in terms of attitude rather than mechanisms. This definition does not apply to the task of recognising visual images constructed with the principle aim of conveying information.

The attitude adopted is a complex of detachment and involvement; detached in the sense that the recipient accepts the work as an end in itself and involved in that the experience commands attention and excites emotion. There is no evidence that any special mechanisms of perception or affect are called into play.<sup>9</sup>

Poster art being basically an applied art must serve the immediate function of conveying information. However, the means by which this may be made possible are

aesthetic in nature, therefore any assessment of the

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<sup>9</sup> Ibid, p.164

affective and cognitive aspects of the communication effort ought to take this into account.

The evaluation of an aesthetic experience that enhances visual-perception may be difficult to quantify. Qualitative measurement through comparative description would be a more pragmatic approach as a means of analysis.

Quantification is only applicable to the extent that the recipient of visual images is only expected to recognise these images.

Increasing dependence on printed media has augmented the development of a wide visual vocabulary. New ideas and techniques are constantly being provided to the viewing public. These techniques have to be isolated and channelled back to the public under controlled circumstances in order that the designer may ask certain questions that are pertinent to the employment of new possibilities<sup>10</sup> to visually express ideas. Questions like:

- i) How does the novelty appear to the individual?
- ii) How does the individual perceive it?

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<sup>10</sup>G.M. Foster, Traditional Societies and Technological Change (New York: Harper and Row Publishers Inc., 1973) p.130

iii) Does he see it in the same light as the specialist who presented it?

iv) Does it convey the same message?

## 2.2 GRAPHIC COMMUNICATION AND ITS SIGNIFICANCE

AS A SOCIAL PHENOMENON forms, techniques and subject matter.

The creative process is, for the designer, generated by and concerned with the problems of visual communication.

It includes an interest in people, and an understanding of the way they feel and think; an ability for making objective analyses; and the imagination to create new visual idioms.

These are some of the more apparent characteristics that make the art of graphic communication essentially social.

Even though it does exist in isolation, graphic communication is said to belong to a broader class generally referred to as popularised culture. That it is a social art makes its popularisation inevitable.

Its significance as a social phenomenon should, therefore, be outlined.

The social forces that were responsible for the creation of a universal popular culture were chiefly urbanisation and industrialisation. The increased emphasis on technological development has affected all nations alike. The technocratic society has created, not only the market for popular culture, but also its forms, techniques and subject matter.

From the moralists point of view, popular culture, the child of technology, has frequently been seen as a symbol of a new brutalism. To those convinced of the vital centrality of traditional culture, popular culture is, by analogy, granted an equal though opposite potency.

Two symbolic forms of expression that have become evidence of a collapse of values are the popular novel and the cinema. Advertising graphic design has made its contribution to this erosion of traditional values. Important publications are supported by revenue from advertising and the widespread availability of these publications has reinforced the impact.

Both in urban areas and rural centres of contemporary Kenya is felt the near-oppressive presence of graphic

design manifestations. Neon lights, advertising consumer goods, large bill boards, advertising posters, cheap magazines and cinema have etched themselves into the consciousness of the general public.

For this reason, graphic communication is one symbolic form of expression that may be said to constitute a 'mass art'.

One aspect of popularised culture that is significant and unique to graphic communication efforts, is its dichotomous character. Posters, calendars, post cards, newspapers and magazines not only serve to inform but also to decorate.

The larger proportion of "wananchi" may not be inclined to possess certain art objects like paintings. Others may simply not afford those objects in the market. However, an aesthetic craving at some stage in their lives might compel them to tear off a picture from a newspaper or magazine or retain an old illustrated calendar to decorate their living environment.

It is this function of graphic communication that can be said to have democratised art.

indeed, being threatened by the encroachment of

Despite the obvious advantages of industrialisation, mass production and mechanised printing have tended to not only undermine the unique quality of a work of art but also to shatter any concept of tradition built on the idea of a chain of autonomous artefacts.

Hence, the machine age not only made the democratisation and popularisation of culture possible, it simultaneously implied the disintegration of tradition and the idea of culture itself.

For many of the indigenous Kenyan communities the concept of culture has meant that the past had a genuinely authoritative role to play; its essence was thought to consist of the promotion of abstract virtues such as truth, beauty and moral probity which were enshrined in works of individual conception. The nomadic people of Kenya in particular still produce artefacts of individual conception based on their unique perception of life. A typical example is a cultural object like the painted shield of the Kenyan Maasai "Ol Moran". This shield is painted with motifs that symbolise certain virtues to the owners. The legitimacy of these unique art objects is indeed, being threatened by the encroachment of

popularised culture into traditional culture of Kenyan communities.

The real problem is that these traditional cultures, while attempting to survive by seeking synthesis, simply do not possess the resources with which to resist manipulators of the new consumer, industry-oriented society since, by definition, they now constitute the new authority and culture.

Two factors which have been credited with being central to the widespread appeal of the various forms of popularised arts and culture are:-

- i) economic changes have brought about an increase in those able to purchase, while
- ii) the spread of literacy continues to create a genuinely mass public.

For this study, the researcher preferred the latter definition. The audience is the key factor both because of size and composition. The mere existence of such a public alone makes viable the production of art forms with a potential for widespread consumption.

The term 'mass' is used to emphasise the size and not imply the homogeneity in the composition of the recipient public. The term has established itself as meaning the large ultimate audience. Nevertheless it has one lingering interpretation: that if most people can be thought of within that definition, they are inherently unstable and easily influenced.

Difficulty over the meaning<sup>12</sup> of the term 'popular culture' arises from the differing meanings attributable to the word 'popular' itself, for it can mean both 'intended for or suited to ordinary people' or 'prevalent, current or accepted by people generally.' The latter includes everyone; the former excludes all but the 'ordinary'.

Thus popular culture is sometimes presented as that which appeals only to commonality, confirming the social fragmentation of society and sometimes as a phenomenon cutting across class lines.

For this study, the researcher preferred the latter definition.

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<sup>12</sup> C.W.E. Bigsby, Approches to Popular Culture

(London: Edward Arnold Publishers Ltd, 1976) p.17

The size of the recipient public continues to grow and the implications of the role of non-verbal communication has become the concern of not only the sociologist, historian, literary writer, anthropologist and psychologist but also that of the graphic designer.

### 2.3 THE POSTER AS A FORM OF GRAPHIC COMMUNICATION

The pictorial poster is so familiar today as a fully developed example of graphic art in which the skills of typography and drawing with colour combine to produce striking...work, and yet its history is little over a hundred years old.<sup>13</sup>

Considering that Kenya acquired knowledge and devices for modern mechanical printing relatively recently, the slow evolution of a unique form of poster art or design, that has a basis in the aesthetic preferences of the public, may not be very surprising.

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<sup>13</sup> C. Hiatt, Picture Posters (London: E.P. Publishing Ltd; 1976) p.1.

The commercial function of design, for what can be described as poster art, has prevailed over the purely aesthetic function. The aesthetic qualities of a great deal of posters have been subordinated or compromised for commerce. In other words, the designer's first business is not to achieve a decoration, but to call the attention of the man in the street to the 'merits of an article'.  
Even though the poster is a little over a hundred years of age, it is difficult to conceive of a time in the history of man when the idea of the thing did not exist, once man had learned to express his thoughts in design and writing.  
The inscriptions believed by scholars<sup>14</sup> to be the germ of the poster, flourished in the Egyptian Civilisation. Yet the poster, one of the most obvious forms of advertisement today, has its true source in the sixteenth century. It was then that it acquired its latter day attributes. The announcements of the sixteenth century of British and French Societies are by and large

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Ibid, p.2

<sup>15</sup> Ibid, p.4

considered to be the precedent of the poster. This is not to suggest that nothing was developed or was developing prior to this time in other parts of the world. It is more that little trustworthy information<sup>15</sup> of the time immediately after the fall of the Roman Empire has been available to scholars on this question. It is certain, nonetheless, that the signboard, which is a variation of the pictorial poster was employed in the early part of the Middle Ages. At that time, the principal means of advertisement was the public crier who would carry with him the sample of the product and out to get attention so that the people might see what there was to be seen.

and served more as typographic ornament than the  
What is perhaps closest in nature to the poster as it exists today are the play bills of the eighteenth century. They served the function of theatre programmes in the English provinces where theatre flourished. They gave notice of performances and had information laid out in order of importance. when the poster was no longer restricted to the theatre but was also put to the cause  
As theatre became more popular so did the playbills. They also increased in size to roughly twenty inches,

these posters, still mainly consisting of lettering, were

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<sup>15</sup> Ibid, p.4 the new process of lithography which gave

a size convenient for pasting onto pillars outside the theatres. arranged in a curved shape at the head of the poster and this method of eye attraction, common in Use was made of the new display types which poured from typefounders between 1810 and 1840. Fat face type, Egyptians, Ionics, Grottesques, Sans serifs, Open and Shadowed are some of the typefaces that possessed striking and dynamic qualities which attracted the eye as print had not done before. At that stage of history, the only pictorial element introduced into the playbill was small wood cuts depicting the action of the play. They were placed between the appropriate lines of type and served more as typographic ornament than the illustration. As they became larger, they were posted on walls of dilapidated houses. Some English water-colourists did renderings of these houses which have provided valuable documentary evidence of this stage of the evolution of the poster. This was the period between 1835 and 1844 when the poster was no longer restricted to the theatre but was also put to the cause of advertising shops, sales and travel. From the watercolors it is clear that many of these posters, still mainly consisting of lettering, were printed by the new process of lithography which gave

greater freedom in layout and design. Lettering was sometimes arranged in a curved shape at the head of the poster and this method of eye attraction, common in current design, in Kenya, is credited to this period. It was lithography that gave greater importance to pictorial elements in the poster and theatre that exploited the pictorial poster. These posters, usually in black, had by common practice, the theatre name and other information regarding the times of performances and venues arranged around the picture at top and bottom and up and down both sides. The lettering thus made a frame for the picture. In the years that followed the chief development of poster design was in the movement of the lettering into the picture and the adaptation of style in the drawing to accommodate it. As printing became less costly and methods of mechanical reproduction of pictures and designs were discovered, it needed no ingenuity to make pictorial illustration a standard feature in the poster.

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One art historian<sup>18</sup> seems to believe that it was not

(London: Peter Owen Ltd; 1963) p.187

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<sup>18</sup> Ibid, p.11

until the early and middle parts of the twentieth century that the pictorial poster was deliberately and artistically thought out by the designer.

Today, in the second half of the twentieth century, During the Second World War, for example, the poster was used with great skill by most of the countries in conflict. It was utilised to foster morale, to persuade people to grow their own vegetables, to eat less bread and not to talk carelessly about their work. Credit is given to poster art of that era saving countless lives and averting injury<sup>17</sup>. The period between the wars and immediately after them saw the art of the poster become more lively and experimental. This paralleled the developments in painting and the theories of non-representational art which nonetheless used color and shape in strong geometric manner. This use of simple evocative shapes prevailed in parts of the world that had had contact with Cubism or already had their own such related theories of non-representational drawing.

Work of European poster artists during the inter-war

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<sup>17</sup>J. Cleaver, A History of Graphic Art  
(London: Peter Owen Ltd; 1963) p.187

of its historical development remained among the applied arts most receptive to imaginative  
period assimilated the ideas and expressive possibilities of the avant-garde painters of the time.

As a result of the poster and other graphic forms of Today, in the second half of the twentieth century, the significance of other graphic forms like newspapers, periodicals, magazines and the audio-visual media has tended to undermine the power of the poster and rendered it somewhat weaker than it initially was. Dependency on photography to solve design problems is considered to have considerably weakened design quality in poster art.

the conventional urban architectural aesthetic. As In spite of this, poster art has survived and continues to explore new design possibilities. Improvements in communications and possibilities of publicity have in many ways provided new impetus for designers.

#### 2.4 DISCUSSION OF SOME RELATED STUDIES

Though the poster is a creation intended mainly for commerce, the researcher will treat it more from the point of view of art than of commerce.

Although the poster is at its heart a medium for advertising an event or service, it has by virtue

of its historical development remained among the applied arts most receptive to imaginative or artistic content.<sup>18</sup>

As a result of the poster and other graphic forms of the print genre being relatively more readily available than other art forms such as painting or sculpture, it can be assumed that an accompanying increase in the aesthetic consciousness of the public should be the logical eventuality.

Many buildings today are rectilinear and based on the conventional urban architectural aesthetic. As a result, picture hanging as a domestic practice is widespread. The more circular architecture of traditional African houses has limited the use of wall space to hanging of solid objects.

Experience in health education<sup>21</sup> has suggested that visual symbols when expressed in two dimensional forms

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<sup>19</sup> Kakooza Kagaba, Contemporary Attitudes to the Visual

<sup>18</sup> J. Cleaver, A History of Graphic Art (London: Peter Owen Ltd., 1963) p. 187

<sup>20</sup> *ibid.*, p. 73-28

<sup>21</sup> A.C. Holmes, A Study of Understanding of Visual Symbols In Kenya. (London: Overseas Visual Aids Centre, 1963), p. 6

As Kakooza<sup>19</sup> observes in reference to the traditional Kiganda hut, wall space was broken up by interesting reedwork and utilitarian objects like gourds and animal skins. As people began more and more to live in rectilinear houses, he observes, they also adopted the practice of hanging pictures. He goes on to say that the interiors of houses<sup>20</sup> were decorated with pictorial calendars of both current and past years, those in colour being preferred to those in black and white. Also popular were illuminated and printed sayings and proverbs. Black and white photographs mainly of relatives, state leaders and occupants of the houses were common in addition to cuttings from newspapers and magazines usually of eye-catching advertisements.

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<sup>19</sup> Kakooza Kagaba, Contemporary Attitudes to the Visual Arts in East Africa (Makerere University, Masters Degree Thesis, 1972). p.15

<sup>20</sup> Ibid, pp. 23-28

<sup>21</sup> A.C. Holmes, A Study of Understanding of Visual Symbol In Kenya. (London: Overseas Visual Aids Centre, 1963). p.6

such as pictures, films, filmstrips, flannelgraphs and other two-dimensional material are not interpreted correctly by a large number of people.

Sporadic tests have shown that correct interpretation of graphic representations depends on a number of factors, some of which are;

- i) familiarity of the object represented to the viewer.
- ii) time allowed the viewer to interpret the image.
- iii) size and scale of representation.
- iv) colour of representation.
- v) arrangement of colour, spaces and voids.
- vi) educational level and 'sophistication' of viewer.
- vii) age of viewer.

Holmes felt it was not manifestly practicable to test out all these assumptions and speculations in one survey. He mentions 'sophistication' as an impediment to interpretation but does not qualify it within the context of his study.

<sup>22</sup> "How Visual Illiteracy Endangers Third Workers," The Standard, 1940, p. 17.

Additionally, his study was conducted at a historical period when the socio-political conditions were less

<sup>23</sup> ibid, p. 17.

favourable than they are at the present time for the majority of the Kenyan population. The subjects may have responded to the interview more out of subservience than out of voluntary spontaneity. Also, some of the isotype drawings used for that study were rather ambiguous and may have precipitated the difficulties the subjects experienced.

The 'skull and cross-bones'<sup>22</sup> which clearly indicates poison to the average inhabitant of an industrialised country may mean nothing to a hunter in the Amazon or a pastoralist in Kenya.

George Mcbean,<sup>23</sup> a graphic artist working for U.N.I.C.E.F., explains that rural audiences with a low level of visual literacy are often totally unable to understand any message from a poster, photograph or film. This, he adds is noticeable in Africa because the traditional method of information sharing has been through speech,

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<sup>22</sup> "How Visual Illiteracy Endangers Third Worlders,"

The Standard Newspaper, (April 18th 1986), p.17

<sup>23</sup> Ibid, p. 17

music and song. Mcbean cites one nomadic community in Kenya which he claims were never exposed to posters or photographs before. He goes on to say that shown a magnified picture of a mosquito, these nomadic people identified it as the air craft of the Flying Doctor Service.

Almost no research has been done to determine the visual literacy of populations in the Third World, where the dangers posed by badly labelled chemicals are often greatest. Visual literacy - the individual's capacity to extract information from a photograph or illustration - cannot be taken for granted.<sup>24</sup>

Whilst studies relating to the perceptual abilities of the public in developing countries are increasing, little emphasis is attached to the accompanying aesthetic preferences of this public. Yet the public sees an image not just as an instrument of visual information but also as an expression. Therefore, what causes the initial attraction should be just as important to the

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<sup>24</sup> Ibid, p.17

### 3.0 RESEARCH METHODOLOGY AND PROCEDURES

graphic designer as what facilitates or impedes communication in a two-dimensional image.

This chapter focuses on the research procedures used for the study to enable collection and description of data.

The principal issues attended to are:

- i) Kinds of data required
- ii) Sources of data and instrumentation
- iii) Classification of dependent variables
- iv) Classification of independent variables
- v) Sampling techniques and data collection procedure

### 3.1 LIMITATIONS

The lack of adequate facilities to simulate laboratory conditions pre-empted a descriptive study or posed to a strictly scientific study that relied on the more sophisticated statistical analyses techniques. Despite this, the researcher was of the opinion that there was merit in the descriptive approach because it was less regimented and had a capacity for greater spontaneity from the target audience. Besides, since the area of study is the poster where communicative effectiveness is chiefly aesthetic, the qualitative approach is to be preferred over the quantitative.

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### 3.2 TYPES OF DATA REQUIRED

The study objectives necessitated the selection of subjects from two different social environments that can be defined as rural and urban and that can be said to be typical of contemporary Kenya society.

The term 'contemporary' does not however encompass all the groups and/or communities within Kenya.

Instead, only the populations that are sustained by crop production or some form of wage employment were considered, whereas the subsistence pastoralists, seven percent<sup>1</sup> of Kenya's total population, were not considered within this definition.

For the study, subjects were selected from the Nairobi area, to represent an urban environment and from Masaku District to represent a rural environment.

Subjects from the two study areas were consequently

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<sup>1</sup>Father Eugene Hillman, "The Global Underclass" Ecoforum

stratified proportionally on the basis of age-groups, formal educational level, sex and occupation.

a) Interview-Schedule

An interview-questionnaire schedule was presented to the subjects simultaneously with the graphic visual material by the researcher and his assistants.

Proportional stratification was based on the actual representation of each variable at district level.

Data was drawn from the responses to the interview-questionnaire and from observing overtly expressed responses that the researcher thought were useful and relevant.

The rationale for having the subjects in each study area stratified proportionally as opposed to homogeneously was that the researcher was not administering the questionnaire and visual material in a controlled environment like a classroom where this kind of stratification might have been more valid. After these initial responses the subjects were expected to interpret the overall design by giving meaning to the poster.

b) Sources of The Posters

3.3 SOURCES OF DATA AND INSTRUMENTATION

a) Interview-Schedule

In order to obtain responses from the subjects, it was necessary that the researcher designed an interview schedule. This was semi-structured in format and the questions pertaining to each poster print were exactly the same. Part 'A' of the questionnaire corresponded to the visual material while part 'B' was concerned with more general information pertaining to aesthetic preferences and the extent of dependence on the various forms of print media by the subjects.

Part 'A' of the questionnaire centred around the formal elements of design in each print and the interpretation of the visual information therein. The formal elements included the identification of colours and images in each of the prints. The time taken to respond to each print was given the same emphasis as the correct or desired responses. After these initial responses the subjects were expected to interpret the overall design by giving meaning to the poster.

b) Sources of The Posters

In order to facilitate acquisition of a variety of posters articulating different phenomena and exploiting a cross-section of graphic conventions, it was necessary for the researcher to approach more than one source.

The researcher was able to obtain and select for study a variety of posters from three sources. These sources were the education unit of the Ministry of Health; the United Nations Information Centre and Mr. Kang'ara wa Njaambi, a Kenyan practicing visual artist. The posters were divided into two dichotomous classes based on the function of the poster. This division was made quite arbitrarily by the researcher and was not based on any established.

Data was collected through interviewing the randomly selected subjects. Supplementary data was acquired through observation and recording any overt gestures over and above a literal response.

The first part of the interview-questionnaire attempted to get information on the dependent variables specifically selected for the study as well as the responses to each

c) Rationale For Semi-Structured Interview-Questionnaire

The format of the questionnaire was such that the questions were not always asked in the form that they were presented but were sometimes modified to suit the inevitable disparities in language comprehension experienced from one subject to the next.

Some of the subjects could not write and therefore the semi-structured format administered by the researcher and his assistants was found to be suitable to both the literate and non-literate subjects.

d) Interviewing and Observation

Data was collected through interviewing the randomly selected subjects. Supplementary data was acquired through observation and recording any overt gestures over and above a literal response.

The first part of the interview-questionnaire attempted to get information on the dependent variables specifically selected for the study as well as the responses to each

of the poster-prints whereas the second part of the questionnaire was more general in nature and was concerned with the acquaintance of the subject with visual media in general and print-media in particular.

### Drawings

On average, only two interviews could be carried out simultaneously. The time taken by the interviewee to respond to the researcher to his assistants was recorded.

caused difficulties and to disintegrate the illustrations therein e) Photography and Drawing

For the purposes of showing a sample of the different manifestations of graphic communication that exists in the study areas, the researcher photographed segments of wall surfaces that were plastered with either posters, calendars or cuttings. Places selected for this exercise were mainly homes of the subjects, market places and shops.

recorded information would be used against them and so

The homes selected for photography opted not to were based on the cross-section of dependent variables used in the study. They also tended to imagine

that the information would be used to incriminate them.

Newspaper cuttings, magazine cuttings, posters,

calendars and photographs were the forms regarded by the researcher as being manifestations of graphic communication.

### 3.4 CLASSIFICATION OF DEPENDENT VARIABLES

#### Drawings

##### Rationale for Classification

Drawings were made of the visual material used for the study to illustrate the sections of the prints that caused difficulties and to disintegrate the illustrations therein into basic components.

#### Tape Recording

This was a data collecting method that was initially regarded as being suitable for the study. However, after the preliminary study it was abandoned. This was because of the apprehension and suspicion the tape recording tended to arouse. Many subjects believed that the recorded information would be used against them and so the subjects selected for the interviews opted not to cooperate despite attempts by the researcher to explain the objectives of the study. They also tended to imagine that the information would be used to incriminate them.

Once the recorder was withdrawn the subjects were transformed and cooperated without any further resistance.

ones regarded as having influence on this ability are:-

### 3.4 CLASSIFICATION OF DEPENDENT VARIABLES

i) familiarity of the depicted object to the viewer

Rationale for Classification two or three dimensions

iii) time allowed the viewer to interpret object

Age and educational level<sup>2</sup> are two factors that have been seen to be significant in determining the perceptual abilities of the Kenyan viewing public. Consequently these two variables have almost totally superceded other likely dependent variables with regard to visual perception. Experience in health education and communication has raised the same questions in developing nations<sup>3</sup>. These questions revolve around the basic assumption that visual symbols, when expressed in two dimensional forms such as pictures, films and filmstrips, are likely to cause problems of out interpretation for a large number of people. tween the

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<sup>2</sup>A.C. Holmes, A Study of Understanding Visual Symbols in Kenya (London: Overseas Visual Aids Centre, 1963) more acute

<sup>3</sup>H. Copen, "A Review of the Literature Relating to Studies Relevant to the Development of Teaching Materials" In Visual Perception In The Commonwealth (London: Commonwealth Secretariat, 1970)

Interpretation of visual symbols has been seen to be dependent on a large number of factors. Some of the ones regarded as having influence on this ability are:-

- i) familiarity of the depicted object to the viewer
- ii) whether this was in two or three dimensions
- iii) time allowed the viewer to interpret object
- iv) size and scale of representation
- v) its colour
- vi) its arrangement
- vii) educational level of the viewer
- viii) the age of the viewer

Many of these assumptions have not been tested mainly as a result of financial constraints experienced by potential reserachers as well as lack of sustained interest. Most of the studies that have been carried out Commonwealth Countries were conducted between the years 1955 and 1965. Holmes' study was for instance, carried out in 1963. At that time, we would expect visual non-literacy to have been considerably more acute than it is today.

Unlike age and educational level, the distribution and

group (with the exception of fifty years and above) variety of occupations that the local people engage in is not reliably documented. This made it rather more difficult for the researcher to accurately stratify the populations on this basis. The representation of the distribution of occupation in the study could thus be said to be arbitrary in the sense that it was not based on any documented information or facts. The stratification of the distribution of occupations was based on what was apparent to the researcher during the pilot study.

The ratio of the male/female representation in the study clusters was proportional to the actual representation in the respective populations. The yardstick for the numerical permutations was, again, the 1979 Kenya Population Census Published by the Central Bureau of Statistics.

#### Occupation

#### Classification of Variables

#### Age-Group

The ages of the subjects were categorised into age-groups the minimum being 'ten years' of age and the maximum being 'fifty years and above'. The range for each

group (with the exception of fifty years and above) was ten years. There were five age-groups for the purposes of the study.

### Educational Level

The subjects were categorised on the basis of formal educational level ranging from 'no formal education' to 'form five and above' in all, there were five categories ranging from:-

- i) no formal education;
- ii) standard one to four primary education;
- iii) standard five to seven primary education;
- iv) form one to four secondary education;
- v) from five and above.

### 3.5 CLASSIFICATION OF INDEPENDENT VARIABLES

#### Occupation

The subjects were also expected to state their occupations. Statistics on which to base the representation of occupation were not available, therefore an approximation was made from a combination of the pilot study estimates and the little available information from the District Officer's

office in Masaku town. This was the procedure for the rural population sample whereas for the urban sample only the pilot study estimates were used.

### Sex

It has been frequently argued that the sex of a person is not significant in determining the perceptual abilities of that person.

However, the concepts of social role are governed to some extent by the sex of an individual within the Kenyan society and this may be an important factor to consider, particularly if occupation does influence an individual's ability to decipher visual information.

### 3.5 CLASSIFICATION OF INDEPENDENT VARIABLES

The independent variables were posters used for the study. These posters were obtained from the United Nations Information Centre and the Division of Health Education and Audio Visual Aids Centre in Nairobi and one Kenyan practicing visual artist. Three posters

were from the East African Industries and were administered by the researcher before the others on the assumption that familiarity with the subject matter would reduce the subjects' reluctance to participate in the interview and introduce them to participate in the interview without fear of failure. The poster-prints were categorised into three broad classes based on the function of the poster and each re-classified into another more specific sub-category on the basis of the graphic convention.

The three broad categories of the posters were specifically for the purposes of the study.

#### Rationale for Classification of Posters

The possibilities of manipulation of visual elements like colour, shape, line, texture and light and dark within any form of graphic communication is dictated by its function. This was the second broad category.

The term information graphics, in the context of the study is used with reference to the posters that are primarily concerned with providing information. The aesthetic component beyond the provision of information

was regarded as secondary. The efficiency in the communication was the emphasis. As such, the time taken for the subject to respond to part 'A' of the questionnaire/schedule was an important consideration in the overall interpretation. This category of poster was not commercial in character from the point of view that it was not advertising a product or service.

Print No.	Theme	Graphic	Broad Classification	Source
c.	Carrying	Direct	Information	United Nations Information Centre
d.	Carrying	Direct	Information	United Nations Information Centre

Common instances of information graphics would be found in the Health Education and the United Nations Posters.

The distribution of posters within the three classes was entirely arbitrary.

Classification of Posters Selected for the Study

The posters selected were classified as follows:-

**Table 1:**

Print No.	Theme	Graphic Conventions	Broad Classification	Source
a.	Universal Declaration of Human Rights	Dramatic (Photomontage) (Photogram)	Information Graphics	United Nations Information Centre
b.	Historical Phenomenon: Mzalendo	Dramatic (Modified) (Silhouette)	Flavour Graphics	Kenyan visual artist
c.	Carrying Capacity	Direct (Photomontage)	Information Graphics	United Nations Information Centre
d.	Carrying Capacity	Direct (Photomontage)	Information Graphics	United Nations Information Centre
e.	U.N. Decade for Women 1976-85	Dramatic (superimposed images)	Information Graphics	United Nations Information Centre

Posters Selected for the Study

Print No.	Theme	Graphic Conventions	Broad Classification	Source
f.	Tuberculosis/ Health Education	Direct (Photographic)	Information Graphics	Division of Health Educa- tion and Audio Visual Aids Centre
g.	Tegu/Minyoo Mirefu. Health Education	Direct (Picture Serial)	Information Graphics	Division of Health Education and Audio Visual Aids Centre
h.	Kipindupindu Health Education	Typographic	Information Graphics	Division of Health Education and Audio Visual Aids Centre
j.	Blue Band Margarine	Direct (Photographic)	Commercial Graphics	East African Industries
k.	Deodorant/ Sure Deospray	Direct (Photographic)	Commercial Graphics	East African Industries
i.	Kimbo Cooking Fat	Direct (Photographic)	Commercial Graphics	East African Industries

Posters Selected for the Study

Print No.	Theme	Graphic Conventions	Broad Classification	Source
m.	Safura/Health Education	Direct (Picture/Serial)	Information Graphics	Division of Health Education and Audio Visual Aids Centre
n.	Uzuizi Wa Magonjwa/ Health Education	Typographic (illustration blocked out)	Information Graphics	Division of Health Education and Audio Visual Aids Centre
p.	Namibia Plunder of Natural Resources	Impact (super imposed images)	Information Graphics	United Nations Information Centre

Plate 1: Print 'a'

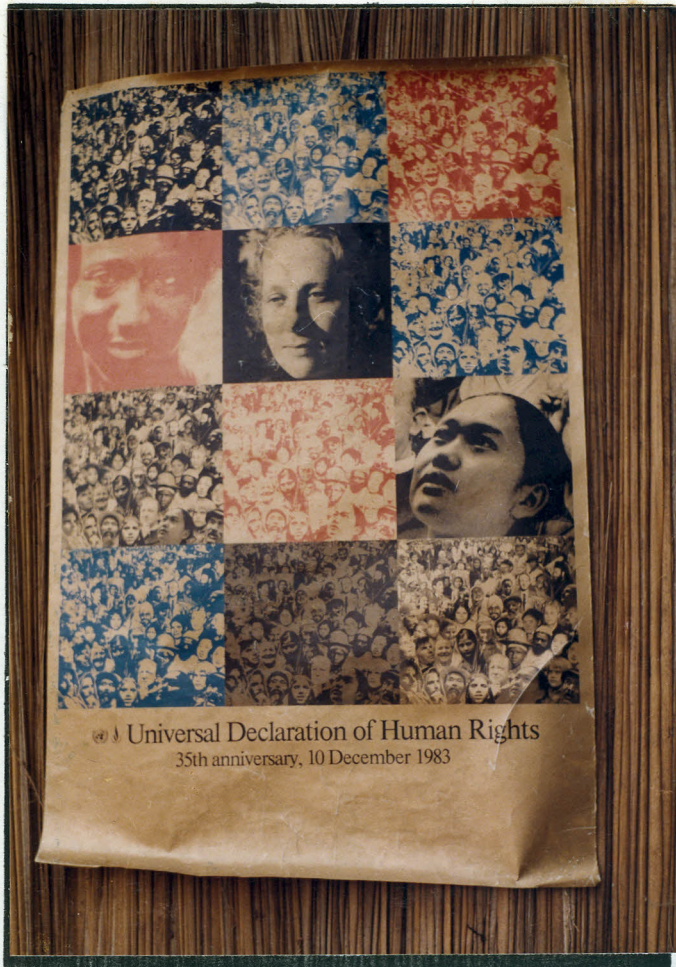


Plate 1: Print 'a'

Plate 2: Print 'b'



Plate 2: Print 'b'



Plate 3: Print 'c'

Plate 4: Print 'd'

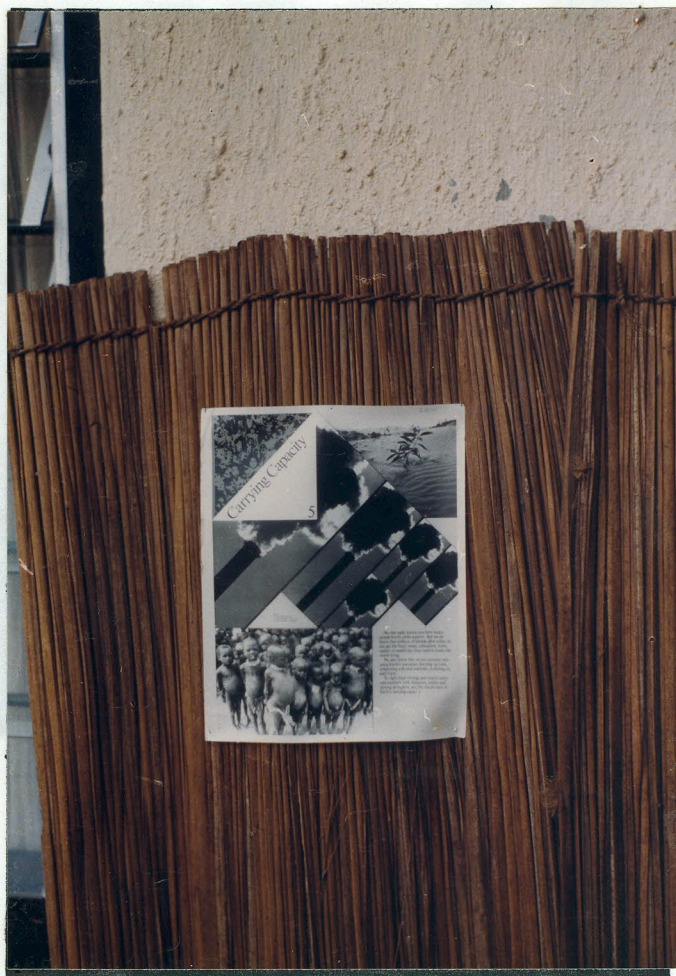


Plate 4: Print 'd'



Plate 5: Print 'e'

Plate 6: Print 'f'



Plate 6: Print 'f'



Plate 7: Print 'g'

Plate 8: Print 'h'

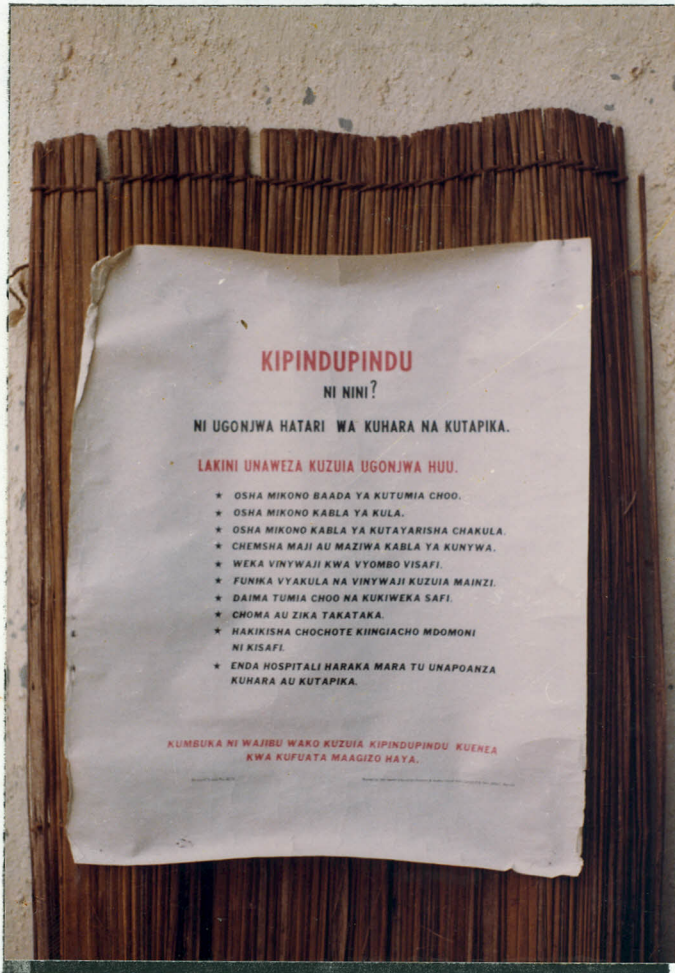


Plate 9: Print 'j'

Plate 8: Print 'h'



Plate 9: Print 'Ij'



Plate 10: Print 'k'

Plate 11: Print 'l'



Plate 11: Print 'I'

Plate 12: Print 'm'

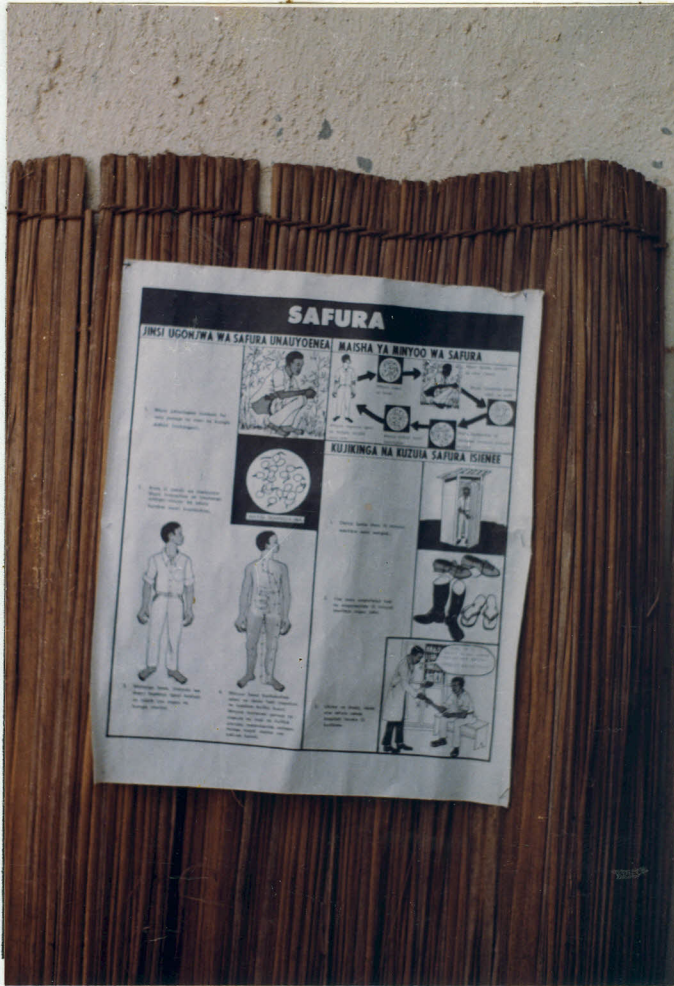


Plate 12: Print 'm'

Plate 13: Print 'n'



Plate 13: Print 'n'

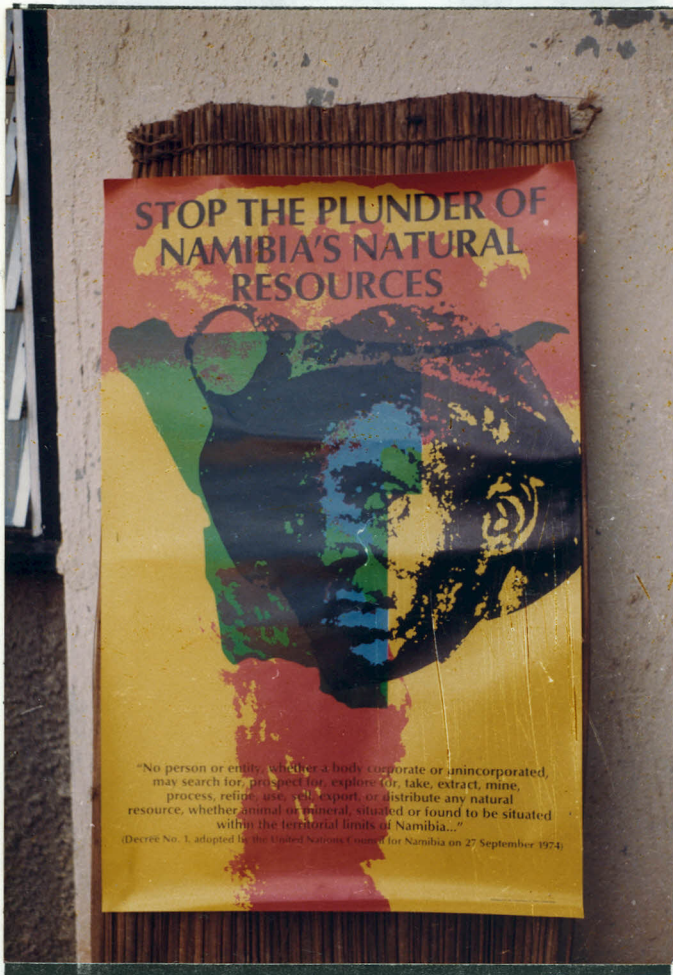


Plate 13:

The technique used by the researcher was to use the front door of the subjects' house as a display surface.

Plate 14: Print 'p'



Plate 15:

The technique used by the researcher was to use the front door of the subjects' house as a display surface.



Plate 16:

Another example of this technique.

Plate 17:

A gradual change from the traditional circular structures to the more conventional rectangular forms has tended to influence the use of wall space. One of the traditional households visited,



Plate 18:

One of the households visited. Nothing is displayed on the walls. The stored maize

Plate 17:

serves as a ceiling. This subject was from  
A gradual change from the traditional circular structures to the more conventional rectangular forms has tended to influence the use of wall space.  
One of the traditional households visited.



Plate 18:

One of the households visited. Nothing is displayed on the walls. The stored maize serves as a ceiling. This subject was from Kikima (no formal education/small scale farmer).



Plate 20: One of the households visited. Calendar is

Plate 19:

One of the households visited. Calendars and an assortment of photographs are used as decorative elements. The subject was from Kangemi. (From two secondary education/clerk). small scale farmer).



Plate 20: One of the households visited. Calendar is used both functionally and decoratively. Shoes on either side of calendar emphasise importance of calendar. The subject was from Kikima. (Standard seven primary education/ small scale farmer).



Plate 21:

Plate 22: Old calendars as decorative elements. The

subject was from Kikima. (Kiosk owner/  
in standard six primary education).

familiarise themselves with different graphic  
conventions. The tree in the foreground and  
the shop at the rear are the display area  
common in Kikima.

### 3.6 SAMPLING TECHNIQUES AND DATA COLLECTION PROCEDURES

The 1979 population census was used as the yardstick for the numerical permutations in the study. One of the areas selected for the study was Mutitu sub-location in Muv...



Sub-Location					
Kangem Ward	11540	9541	21081	5950	4031

Plate 22:

#### Randomising and Sampling Procedures: Mutitu District

The shop with a variety of posters enables the

inhabitants to consciously or unconsciously

familiarise themselves with different graphic

conventions. The tree in the foreground and

the shop at the rear are the display fora

common in Kikima.

### 3.6 SAMPLING TECHNIQUES AND DATA COLLECTING PROCEDURES

The 1979 population census was used as the yardstick for the numerical permutations in the study. One of the areas selected for the study was Mutitu sub-location in Mbooni Division of Masaku District. From this area was derived the study sample to represent the rural environment. The population sample representing an urban environment was selected from Kangemi Ward in Northern Nairobi.

**Table 2: Demographic Details of Study Areas**

Administrative Area	Males	Females	Total	No. of H/Holds	Sq.Kms	Density
Mutitu Sub-Location	2652	2975	5627	1224	20	274
Kangemi Ward	11540	9541	21081	5950	5 3933	

#### Randomising and Sampling Procedures: Masaku District

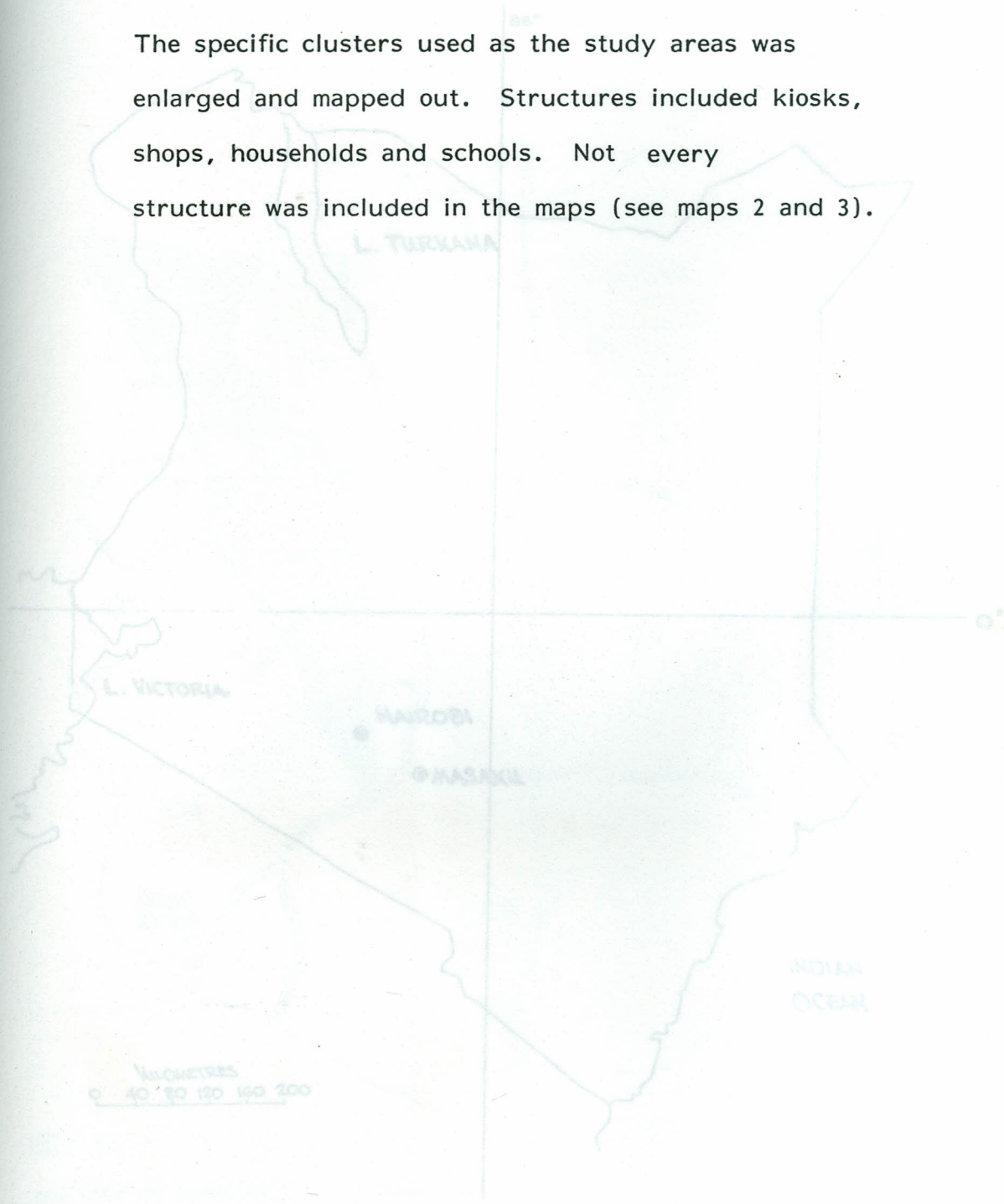
The district was divided into its smallest administrative units to facilitate the random selection of a possible study area from the district. This was done with the assistance

of the Land Adjudication Office, Ministry of lands and Settlement and the Bureau of Statistics Offices in Machakos town. Only ten of the more than one hundred sub-locations within the district had been recently mapped. The mapped sub-locations included Kakuswi (kiteta location), Kiambwa (Kiteta location), Miumbuni (Mitaboni location), Mutitu (Mbooni location) and Maiyani (Mukaa Location).

By simple random sampling, Mutitu sub-location was selected as the study area and further sub-divided into Enumeration Areas because it would not be physically possible to cover the whole sub-location.

A detailed topographical map of Mutitu sub-location was made available to the researcher by the Land Adjudication Office in Machakos Town. With the assistance of the adjudication office staff this map was sub-divided into six Enumerated Areas or clusters referred to as 01 to 06. Enumerated area number 02 was selected for the study by simple random sampling. This area was one of the more populous of the six with approximately three hundred structures. This cluster was further sub-divided into four clusters with one hundred structures each. The

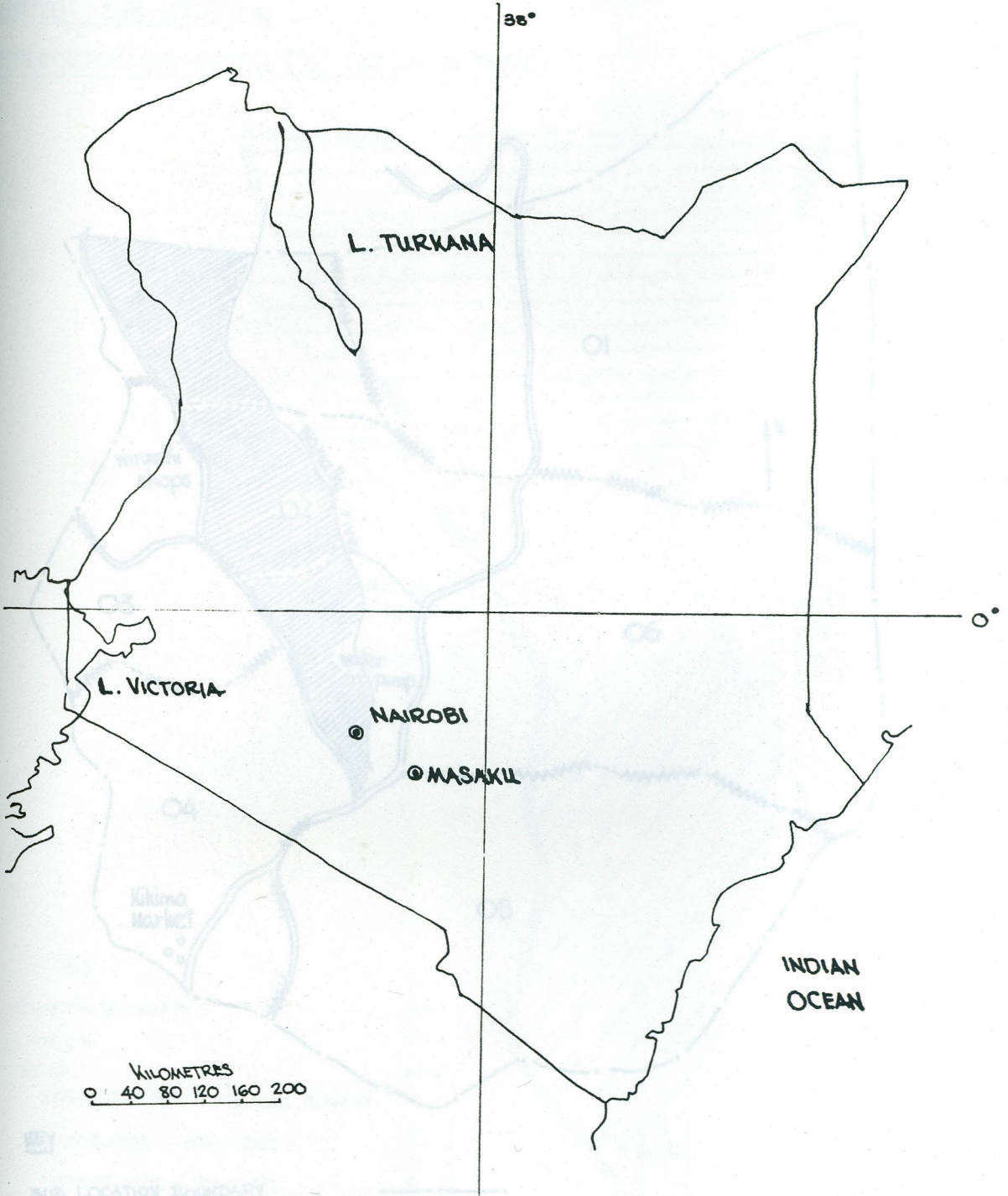
The specific clusters used as the study areas was enlarged and mapped out. Structures included kiosks, shops, households and schools. Not every structure was included in the maps (see maps 2 and 3).



MAP 1

REPUBLIC OF KENYA

RELATIVE POSITIONS OF THE TWO STUDY AREAS, NAIROBI and MASAKU



SUB LOCATION BOUNDARY

TRACK

CLUSTER BOUNDARY

SELECTED CLUSTER

ROAD

RIVER

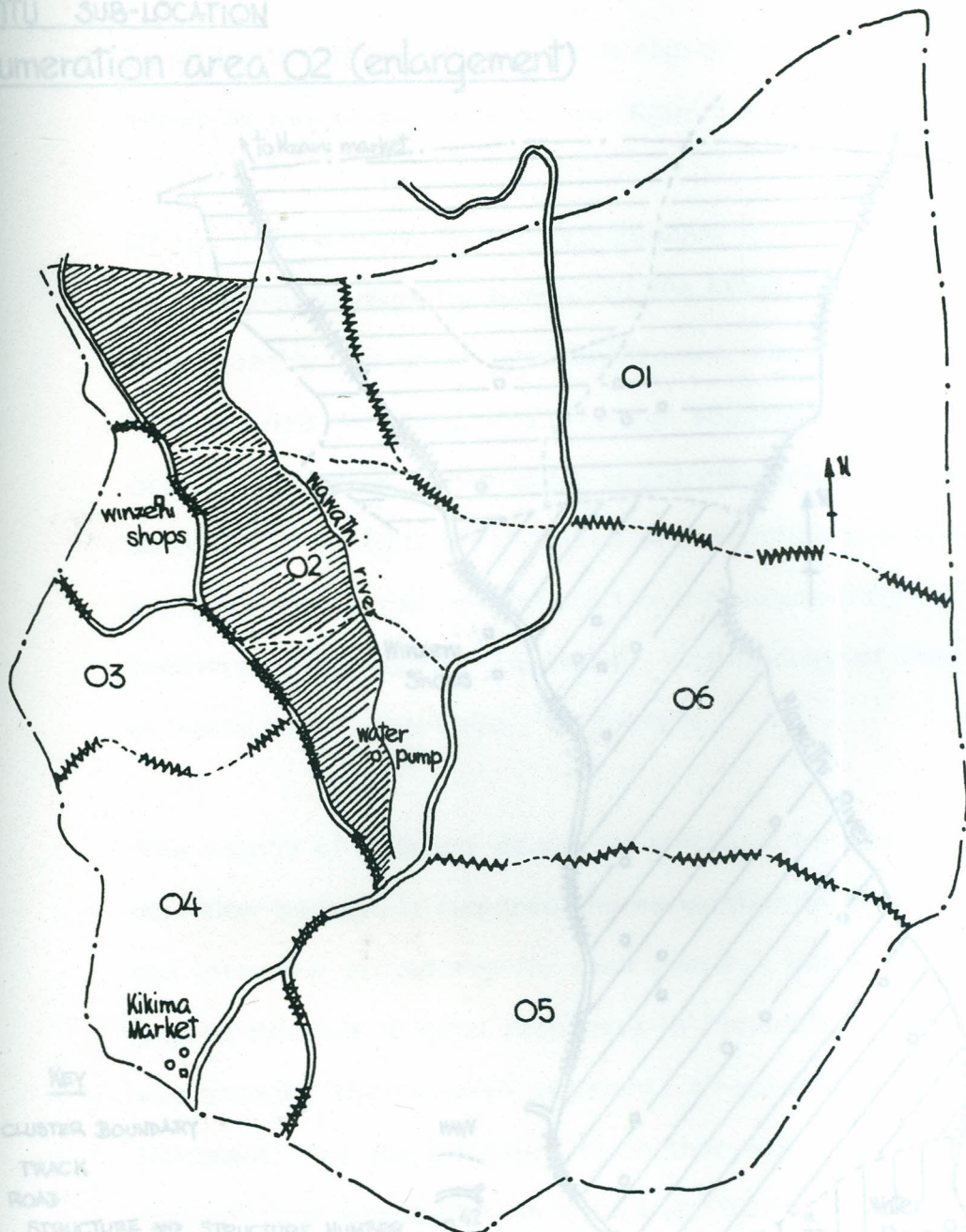
MŪTITŪ SUB-LOCATION

enumeration areas 01-06

MAP 3

MŪTITŪ SUB-LOCATION

enumeration area 02 (enlargement)



KEY

SUB LOCATION BOUNDARY

TRACK

CLUSTER BOUNDARY

SELECTED CLUSTER

ROAD





Stratification of the subjects with regard to the dependent variables was proportional to the figures available.

Of the dependent variables, 'educational level' was stratified proportionally before all the other variables.

Subsequently, all other stratification was based on this.

The rationale for doing this was that education could be divided into three conveniently broad categories.

Selection of subjects on the basis of occupation was more arbitrary but it was evident that in a predominantly subsistence agricultural community, the majority of the subjects would, inevitably, be farmers.

The method of collecting data from structure to structure was slow because it required the researcher to repeat the interview procedures for each poster. Where it proved difficult to elicit responses in Kiswahili, Kikamba was used by the research assistant, always with success. Movement from one structure to another was done on foot and this meant that no more than four subjects could be interviewed in any one day. The average time taken by each subject to respond to the whole range of posters was approximately one hour and fifty-two minutes

excluding the time taken to set up and the introduction. This restricted the researcher to using only fourteen posters for the study and limited the number of interviewees. The concentration of the subject appeared to be significantly impaired by the time the last four posters were administered. This was suggested by the one word answers most subjects were giving at this stage.

To ensure impartiality in the selection of subjects from a particular household a modified version of the randomisation technique employed by the Family Planning Association of Kenya was used. (see Appendix 9.3)

This involved the listing of ages of each resident of the selected household or structure in descending order. If any of the variables attained the desired quota required by the researcher, then a fresh variable was taken into consideration.

Selection of the subject was made possible by taking the last digit of the questionnaire and the corresponding total number of residents in the household. Where these intersected (column and row) there was a digit. The

number on the list of residents that corresponded with this digit was the subject who would be interviewed. If the subject selected was not acceptable because he/she did not tally with the pre-determined representation in age, educational level, sex or occupation, the resident who was immediately before or after on the same list of residents was selected. If, however, the residents were uncooperative or unsuitable, the researcher would proceed to another household or shop or plot.

Even though the structures identified for the study were done so during the pilot survey, the residents were listed, selected and interviewed during the actual study.

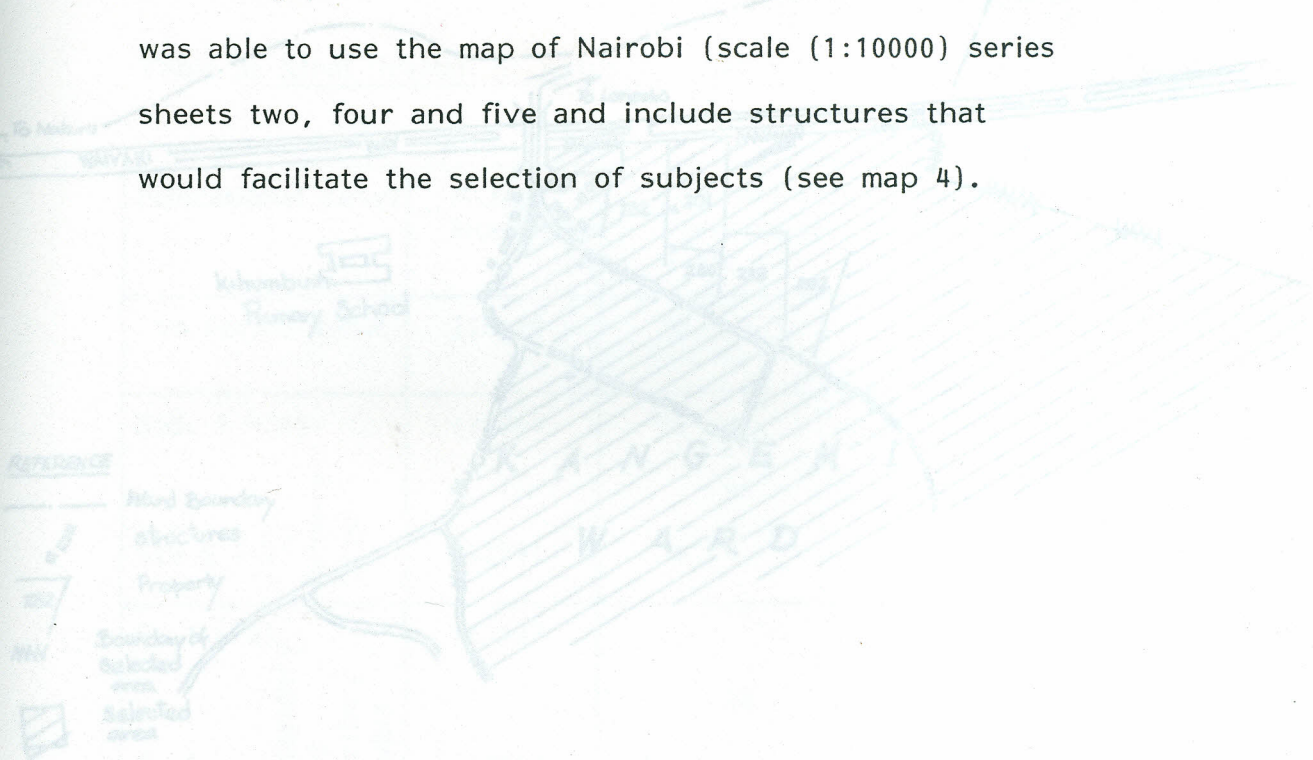
This was so to avoid the time consuming procedures of fresh selection in the event of a selected resident changing residence in the space of time between the pilot study and the actual study.

#### Randomising and Sampling Procedures: Nairobi Area

Kangemi Ward, a residential and commercial administrative unit on the north western periphery of Nairobi was selected as the urban environment for the study. The

some procedures were used to select the structures and the subjects. However, the general map of Nairobi was used to locate and isolate Kangemi and not the detailed topographical maps as with Mutitu sub-location. The researcher attempted to acquire the topographical maps of the area without much success.

Nevertheless, the researcher being familiar with the area and being provided with assistance from the chief's office, was able to use the map of Nairobi (scale (1:10000) series sheets two, four and five and include structures that would facilitate the selection of subjects (see map 4).



Proportional Stratification of Subjects

Nairobi Area: - Total Population 15207

(excluding age-group 0-9)

MAP 4

NAIROBI AREA

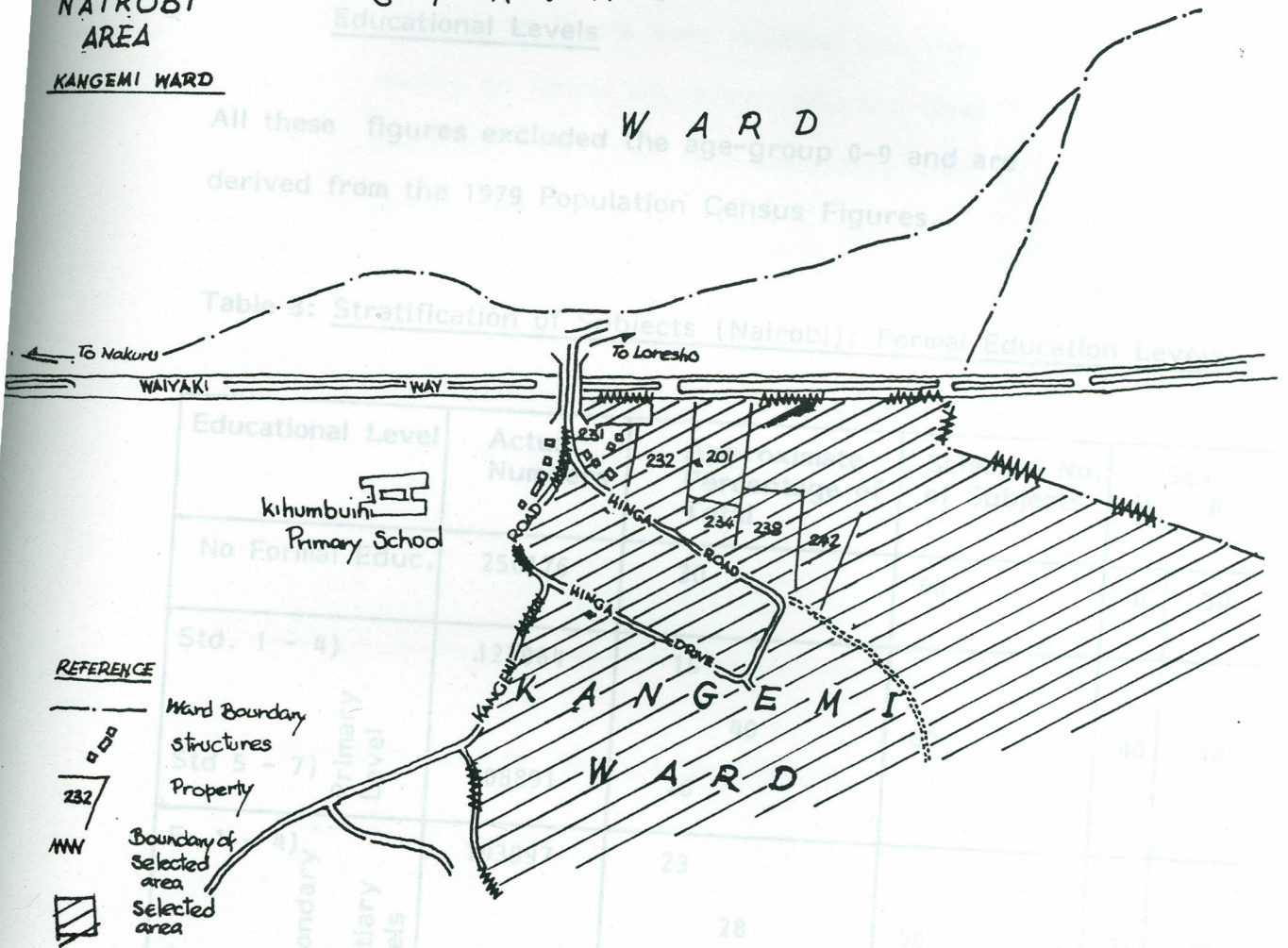
KANGEMI WARD

SPRING VALLEY

WARD

All these figures excluded the age-group 0-9 and are derived from the 1979 Population Census Figures

Tables: Stratification of Subjects (Nairobi): Formal Education Levels



Educational Level	Actual Number	Percentage	Standard
No Formal Education	25	15	25
Std. 1 - 4	12	7	12
Primary Level	71	40	71
Secondary and Tertiary Levels	40740	5	40740
F. 5+	12000	2	12000
Not stated			

Notes to Proportional Stratification of Subjects

Nairobi Area: - Total Population 615207  
 (excluding age-group 0-9)

Educational Levels

All these figures excluded the age-group 0-9 and are derived from the 1979 Population Census Figures.

Table 3: Stratification of Subjects (Nairobi): Formal Education Levels

Educational Level	Actual Numbers	Approximate Percentage of Total	Selected No. of Subjects	Sex	
				M	F
No Formal Educ.	250176	30	60	30	30
Std. 1 - 4)	127064	15	80	40	40
Std 5 - 7) Primary Level	208891	40 25			
F. 1 - 4)	193997	23	56	28	28
F. 5+ Secondary and Tertiary Levels	40740	28 5			
Not stated	12000	2	-		

Notes to table: -

i) Figures do not necessarily add up to actual totals<sup>1</sup> because of rounding off.

Age Group Categories

ii) Educational levels were isolated into three parts; no formal education, primary level education (Std. 1-7) and secondary and tertiary education (F. 1-6+)

iii) Ratio of males to females selected was standardised because the ratio of males to females was approximately 1:1

Age Group	Population	Male	Female	Sex	
				M	F
10 - 19	156007	23	47	24	23
20 - 29	240929	35	71	36	35
30 - 39	170841	23	47	24	23
40 - 49	57827	10	20	10	10
50+	40483	10	20	10	10
Not stated			1		

<sup>1</sup> 1979 Population Census, District level figures

Nairobi Area - Total Population - 615207

(excluding age-group 0-9)

Age Group Categories

All these figures are derived from the 1979 Population Census figures but exclude the age-group 0-9.

Table 4: Stratification of Subjects (Nairobi): Age Groups

Age Group	Actual No.	Approximate Percentage of Total	Selected No. Number of Subjects	Sex	
				M	F
10 - 19	156007	23	47	24	23
20 - 29	240929	35	71	36	35
30 - 39	118219	19	38	19	19
40 - 49	57827	10	20	10	10
50+	40483	10	20	10	10
Not stated			1		

Notes to table: - - Total Population - 655843

- i) Figures do not necessarily add up to actual totals<sup>2</sup> because of rounding off.

Educational Levels

- ii) Ratio of males to females selected was standardised because the ratio of males to females approximated 1:1

Table 5: Stratification of Subjects (Masaku): Formal Educational Levels

Educational Level	Actual Nos.	Approximate Percentage of Total	Selected No. of Subjects	Sex	
				M	F
No formal Educ.	189831	30	60	30	30
Std 1 - 7	367025	58	116	58	58
F. 1 - 5+	74225	11	22	11	11
Not stated		1			

Notes to table:-

- i) Figures do not necessarily add up to actual totals because of rounding off.

Masaku District: - Total Population - 655843  
(excluding age-group 0-9)

Educational Levels

All these figures exclude the age-group 0-9 and are derived from the 1979 Population Census figures.

**Table 5: Stratification of Subjects (Masaku): Formal Educational Levels**

Educational Level	Actual Nos.	Approximate Percentage of Total	Selected No. of Subjects	Sex	
				M	F
No formal Educ.	189831	30	60	30	30
Std 1 - 7	367025	58	116	58	58
F. 1 - 5+	74225	11	22	11	11
Not stated		1			

Notes to table:-

- i) Figures do not necessarily add up to actual totals because of rounding off.

Masaku District: - Total Population - 655843

(excluding age-group 0-9)

Age-Group Categories

All these figures are derived from the 1979 Population Census figures but excluded the age-group 0-9.

**Table 6: Stratification of Subjects (Masaku): Age Groups**

Age Group	Actual Nos.	Approximate Percentage of Total	Selected No. of Subjects	Sex	
				M	F
10 - 19	260000	41	82	41	41
20 - 29	140000	22	44	22	22
30 - 39	85000	13	26	13	13
40 - 49	57000	8.5	18	9	9
50+	100000	15	30	15	15
Not stated	2500	0.5	-		

Notes to table:-

i) Figures do not necessarily add up to actual totals because of rounding off.

Number of Subjects Interviewed

Due to the limitations of time and finance, the number of subjects was limited to four hundred in total. Each of the study areas had a total of two hundred subjects who were stratified on the bases of the dependent variables used in the study.

Research Assistants

The researcher, prior to carrying out the study, assumed that some of the selected subjects may have difficulty in responding effectively in the national language Kiswahili. This was confirmed during the pilot study, especially in the rural study area. For this reason, the researcher's assistants were conversant with Kikamba and apart from assisting with the interviews in Kiswahili or English, the two assistants also translated the questions in the

interview schedule into Kikamba...  
format remained the same.

In contrast to the rural subjects, the urban subjects were willing and able to answer questions in Kiswahili.

#### Little Visiting and Talking to the Local People in Study Areas

As suggested earlier on, some of the subjects selected for the interview in homes, markets and schools tended to be uncooperative. This was initially apparent during the pilot study.

This problem was investigated further through the chiefs' offices because a proportion of the selected subjects were still suspicious of the researcher's objectives. However, after moving round with personnel from the chief's offices and withdrawing the tape recorder this problem was substantially resolved.

The means of movement within the study areas influenced to some extent the number of interviews carried out in a day. The researcher and his assistants

The practicability of the semi-structured interview schedule was tested on the subjects by way of a pilot study.

Questions that caused ambiguity were re-phrased.

However, the nature of the questions and the basic format remained the same.

This chapter focuses on the presentation of data collected from the rural and urban study areas.

Difficulties Encountered

Little comprehensive reference material in the form of secondary data, that was congruent with the procedures used for this study, was available to the researcher at the time of execution of the study.

Data on some of the variables used, especially 'occupation', was very scarce.

Previous studies that were available and relevant were conducted in controlled environments like classrooms.

This has made comparison with this particular study somewhat difficult.

The means of movement within the study areas influenced, to some extent, the number of interviews that could be carried out in a day. The researcher and his assistants moved on foot in areas that were sometimes quite physically demanding. It was thus necessary to rest at intervals during the collection of data.

Print No.	Theme	Graphic Mode	General class	Source
A	Universal Declaration of Rights	(Photomontage)	Graphics	United Nations Information Centre
B	Historical Mzalendo	Dramatic (Silhouette)	Flavour Graphics	Kenyan Artist

## 4.0 PRESENTATION OF DATA & ANALYSIS

### 4.1 STATISTICAL TREATMENT OF DATA

This chapter focuses on the presentation of data collected from the subjects from both the rural and urban study areas.

Statistical interpretation was based exclusively on the first part of the interview-schedule and was limited to percentages.

Though the poster prints were presented to the subjects separately to respond to, the tabulation of data involved the simultaneous presentation of data from two poster-prints. This format offered the possibility of comparison.

#### Nairobi Area: (Kangemi Ward)

**Table 7: Classification of Posters; Prints 'a' and 'b'**

Print No.	Theme	Graphic Mode	General Class	Source
a	Universal Declaration of Human Rights	Dramatic (Photomontage) Photogram	Information Graphics	United Nations Information Centre
b	Historical Phenomenon Mzalendo	Dramatic (modified Silhouette)	Flavour Graphics	Kenyan Artist

Masaku District (Mutitu Sub-Location)

Prints 'a' and 'b'

**Table 8:** Statistical Presentation of Responses to Prints 'a' and 'b'; Nairobi

	Print No.	% ages	Print No.	% ages
	a.		b.	
Total number of subjects	200		200	
Correct responses to colours	183	91.5	200	100
Incorrect responses to colours	17	8.5	0	0
Correct responses to images	200	100	164	82
Incorrect responses to images	0	0	36	18
Text read correctly	141	70.5	117	58.5
Text read incorrectly	59	29.5	83	41.5
Correct interpretation	89	44.5	76	38
Incorrect interpretation	111	55.5	124	62

Masaku District (Mutitu Sub-Location)

Prints 'a' and 'b'

**Table 9: Statistical Presentation of Responses to Prints 'a' and 'b'; Masaku**

	Print No.	% Ages	Print No.	% Ages
	<b>a</b>		<b>b</b>	
Total number of subjects	200		200	
Correct responses to colours	188	94	200	100
Incorrect responses to colours	12	6	0	0
Correct responses to images	200	100	186	93
Incorrect responses to images	0	0	14	7
Text read correctly	112	56	15	7.5
Text read incorrectly	88	44	185	92.5
Correct Interpretation	64	32	30	15
Incorrect interpretation	136	68	170	85

Nairobi Area (Kangemi Ward)

The poster prints 'c' and 'd' are the same in so far as the image/s is concerned, 'c' is in colour and 'd' is in black and white.

**Table 10: Classification of Posters; Prints 'c' and 'd'**

Print No.	Theme	Graphic Mode	General Class	Source
c	Carrying Capacity	Direct (Photomontage)	Information Graphics	United Nations Information Centre
d	Carrying Capacity	Direct (Photomontage)	Information Graphics	United Nations Information Centre

Marak Nairobi Area (Kangemi Ward)

Prints 'c' and 'd'

**Table 11: Statistical Presentation of Responses to Prints**

'c' and 'd'; Nairobi

	Print No.	% Ages	Print No.	% Ages
	c		d	
Total number of subjects	200		200	
Correct responses to colours	180	90	200	100
Incorrect responses to colours	20	10	0	0
Correct responses to images	150	75	175	87.5
Incorrect responses to images	50	25	25	12.5
Text read correctly	50	25	60	30
Text read incorrectly	150	75	140	70
Correct interpretation	50	25	60	30
Incorrect interpretation	150	75	140	70

Masaku District (Mutitu Sub-Location)

Prints 'c' and 'd'

**Table 12: Statistical Presentation of Responses to Prints  
'c' and 'd'**

	Print No.	% ages	Print No.	% ages
Total number of subject	200		200	
Correct responses to colours	178	89	200	100
Incorrect responses to colours	22	11	0	0
Correct responses to images	140	70	153	76.5
Incorrect responses to images	60	30	47	23.5
Text read correctly	168	84	166	83
Text read incorrectly	32	16	34	17
Correct interpretation	46	23	54	27
Incorrect interpresentation	154	77	146	73

Nairobi Area (Kangemi Ward)

Prints 'e' and 'f'

Table 13: Statistical Presentation of Responses to Prints

Table 13: Classification of Posters; Prints 'e' and 'f'

Print No.	Theme	Graphic Mode	General Class	Source
e	United Nations Decade for Women 1976- 85	Dramatic (Super Imposed images)	Information Graphics	United Nations Centre
f	Tuberculosis/ Health Education	Direct (Photo- graphic)	Information Graphics	Division of Health Education and Audio Visual Aids Centre

Nairobi Area (Kangemi Ward)

Prints 'e' and 'f'

**Table 14:** Statistical Presentation of Responses to Prints  
'e' and 'f'; Nairobi

	Print No.	% ages	Print No.	% ages
	e		f	
Total number of subjects	200		200	
Correct responses to colours	160	80	180	90
Incorrect responses to colours	40	20	20	10
Correct responses to images	68	34	142	71
Incorrect responses to images	132	66	58	29
Text read correctly	60	30	58	29
Text read incorrectly	140	70	142	71
Correct interpretation	68	34	61	30.5
Incorrect interpretation	132	66	139	69.5

Masaku District (Mutitu Sub-Location

Prints 'e' and 'f'

Table 15: Statistical Presentation of Responses to Prints  
'e' and 'f'; Masaku

	Print No.	% ages	Print No.	% ages
Total number of subjects	200		200	
Correct responses to colours	154	77	172	86
Incorrect responses to colours	46	23	28	14
Correct responses to images	52	26	106	53
Incorrect responses to images	148	74	94	47
Text read correctly	58	29	64	32
Text read incorrectly	142	71	136	68
Correct interpretation	58	29	64	32
Incorrect interpretation	142	71	136	68

Nairobi Area (Kangemi Ward)

Prints 'g' and 'h'

Table 16: Classification of Posters; Prints 'g' and 'h'

Print No.	Theme	Graphic Mode	General Class	Source
g	Tegu-Mnyoo Mrefu/Health Education	Direct (Picture Serial)	Information Graphics	Division of Health Education and Audio Visual Aids Centre.
h	Kipindupindu Health Education	Typographic	Information Graphics	Division of Health Education and Audio Visual Aids Centre

Masaku District (Mutitu Sub-Location)  
Nairobi Area (Kangemi Ward)

Prints 'g' and 'h'

Table 17: Statistical Presentation of Responses to Prints  
'g' and 'h'; Nairobi

	Print No.	% ages	Print No.	% ages
Total number of subjects	200		200	
Correct responses to colours	200	100	200	100
Incorrect responses to colours	0	0	0	0
Correct responses to images	162	81	-	-
Incorrect responses to images	38	19	-	-
Text read correctly	108	54	96	48
Text read incorrectly	92	46	104	52
Correct interpretation	56	28	96	48
Incorrect interpretation	144	72	104	52
Incorrect interpretation				

Masaku District (Mutitu Sub-Location)

Prints 'g' and 'h'

**Table 18: Statistical Presentation of Responses to Prints**

	Print No.	% ages	Print No.	% Ages
	h		h	
Total number of subjects	200		200	
Correct responses to colours	200	100	200	100
Incorrect responses to colours	0	0	0	0
Correct responses to images	132	66	-	-
Incorrect responses to images	68	34	-	-
Text read correctly	42	21	38	19
Text read incorrectly	158	79	162	81
Correct interpretation	44	22	42	21
Incorrect interpretation	156	78	158	79

Poster 'j', 'k' and 'l' were prints advertising products that are relatively better known than some of the subject matter in the other poster prints used in the study.

Prints 'j', 'k' and 'l'

In order to overcome, to a certain degree, the effects of the novelty of the experience of trying to interpret material that may have been unfamiliar to the interviewee, the researcher felt that the uncertainty of the interviewee would be reduced if the first image shown to him/her was familiar. On this assumption poster-print 'j' was shown to the interviewees before all the other prints.

Nairobi Area (Kangemi Ward)

Prints 'j', 'k' and 'l'

**Table 19: Classification of posters; Prints 'j','k' and 'l'**

Print No.	Theme	Graphic Mode	General Class	Source
j	Blue Band Margarine	Direct (Photographic)	Commercial Graphics	East African Industries
k	Deodorant Spray	Direct (Photographic)	Commercial Graphics	East African Industries
l	Kimbo Cooking fat	Direct (Photographic)	Commercial Graphics	East African Industries

Masaku District (Mutitu Sub-Location)

Naironi Area (Kangemi Ward)

Prints 'j', 'k' and 'l'

Prints 'j', 'k' and 'l'

Table 20: Statistical Presentation of Responses to Prints 'j', 'k' and 'l'; Nairobi

	Print No.	% ages	Print No.	% ages	Print No.	% ages
	j		k		l	
Total number of subjects	200		200		200	
Correct responses to colours	196	98	194	97	196	98
Incorrect responses to colours	4	2	6	3	4	2
Correct responses to images	192	96	163	81.5	196	98
Incorrect responses to images	8	4	37	18.5	4	2
Text read correctly	82	41	76	38	91	45.5
Text read incorrectly	118	59	124	62	109	54.5
Correct interpretation	192	96	102	51	194	97
Incorrect interpretation	8	4	98	49	6	3

Masaku District (Mutitu Sub-Location)

Prints 'j', 'k' and 'l'

Table 21: Statistical Presentation of Responses to Prints

'j', 'k' and 'l'; Masaku

Print Theme	Print No.	% ages	Print No.	% ages	Print No.	% ages
	<b>j</b>		<b>k</b>		<b>l</b>	
Total number of subjects	200		200		200	
Correct responses to colours	188	94	182	91	192	96
Incorrect responses to colours	12	6	18	9	8	4
Correct responses to images	186	93	142	71	181	90.5
Incorrect responses to images	14	7	58	29	19	9.5
Text read correctly	62	31	58	29	64	32
Text read incorrectly	138	69	142	71	136	68
Correct interpretation	182	91	56	28	191	95.5
Incorrect interpretation	18	9	144	72	9	4.5

Nairobi Area (Kangemi Ward)

Prints 'm' and 'n'

Table 22: Classification of posters; Prints 'm' and 'n'

Print	Theme	Graphic Mode	General Class	Source
m	Safura/ Health Education	Direct (Picture serial)	Information Graphics	Division of Health Education and Audio Visual Aids Centre
n	Uzuizi wa magonjwa/ Health Education	Typographic (illustration blocked out)	Information Graphics	Division of Health Education and Audio Visual Aids Centre

Nairobi Area (Kangemi Ward)

Prints 'm' and 'n'

Table 23: Statistical Presentation of Responses to Prints

'm' and 'n'; Nairobi

	Print No.	% ages	Print No.	% ages
	<b>m</b>		<b>n</b>	
Total number of subjects	200	91	200	98
Correct responses of colours	188	94	200	100
Incorrect responses to colours	12	6	0	0
Correct responses to images	158	79	-	-
Incorrect responses to images	42	21	-	-
Text read correctly	104	52	92	46
Text read incorrectly	96	48	108	54
Correct interpretation	92	46	88	44
Incorrect interpretation	108	54	112	56

Masaku District (Mutitu Sub-Location)

Prints 'm' and 'n'

Table 24: Statistical Presentation of Responses to Prints  
'm' and 'n'; Masaku

	Print No.	% Ages	Print No.	% Ages
	<b>m</b>		<b>n</b>	
Total number of subjects	200		200	
Correct responses to colours	182	91	196	98
Incorrect responses to colours	18	9	4	2
Correct responses to images	123	66.5	-	-
Incorrect responses to images	77	33.5	-	-
Text read correctly	52	26	32	16
Text read incorrectly	148	74	168	84
Correct interpretation	56	28	34	17
Incorrect interpretation	144	72	166	83

**Table 25: Classification of Posters; Print 'p'**

Print	Theme	Graphic Mode	General Class	Source
p	Namibia Plunder of of Natural Resources	Impact (Super Imposed Images)	Information Graphics	United Nations Information Centre

#### 4.2 DATA ANALYSIS

On the assumption that the specific dependent variables significantly influenced the capacity of the subjects to perceive and interpret the pictorial images, the researcher analysed and compared the data that was collected.

**Table 26: Statistical Presentation of Responses to Print**

This analysis was principally descriptive. No sophisticated statistical data analysis techniques were employed.

	Print No. (Nairobi)	% Ages	Print No. (Masaku)	% Ages
Total number of subjects	200		200	
Correct responses to colours	198	99	198	99
Incorrect responses to colours	2	1	2	1
Correct responses to images	202	51	69	34.5
Incorrect responses to images	98	49	131	65.5
Text read correctly	108	54	63	31.5
Text read incorrectly	92	46	137	69.5
Correct interpretation	103	51.5	48	24
Incorrect interpretation	97	48.5	152	76

## 4.2 DATA ANALYSIS

On the assumption that the specific dependent variables significantly influenced the capacity of the subjects to perceive and interpret the pictorial images, the researcher analysed and compared the data that was collected.

This analysis was principally descriptive. No sophisticated statistical data analysis techniques were employed.

The researcher had for each poster-print fashioned a criterion to determine what constituted a correct response and conversely what was incorrect.

### i) Small scale farmers

Each print was considered independently in order that disparities in the interpretation of the information could be discerned easily between the different categories of subjects.

### vi) Watchmen

With the exception of 'occupation', the representation of all the other dependent variables in the two population samples closely approximated the actual numbers in the respective whole populations of the areas where the

study was conducted.

Only the more apparent occupations were considered for the study. These were selected during the pilot study.

It must be emphasised that by no means was the full spectrum of occupations in the two study areas included in the study.

Various categories of people engaged in different occupations were apparent in the rural study area. The categories of people considered were:-

Occupation	No. of Subjects
i) Small scale farmers	83
ii) Primary school pupils	41
iii) Housewives	32
iv) High school students	16
v) Shopkeepers	12
vi) Watchmen	8
vii) Nursery school teachers	7

- i) Small scale farmers
- ii) Primary school pupils
- iii) Housewives
- iv) High school students
- v) Shopkeepers
- vi) Watchmen
- vii) Nursery school teachers

The representation was as follows for the rural study area:-

- iii) Watchmen
- iv) Shopkeepers

v) Housemaids

vi) Kiosk Owners

**Table 27: Stratification of Subjects (Masaku); Occupation**

viii) High school students

ix) Primary school students

Occupation	No. of Subjects
i) Small scale farmers	88
ii) Primary school pupils	41
iii) Housewives	32
iv) High school students	16
v) Shopkeepers	12
vi) Watchmen	8
vii) Nursery school teachers	3
<b>Total</b>	<b>200</b>

Various categories of people engaged in different occupations were considered for the urban study area. Most apparent in the urban study area were the following category of people:-

vi) Kiosk-owners

viii) i) The unemployed

viii) ii) Housewives

ix) iii) Watchmen

x) iv) Shopkeepers

xi) Barbers

Total

- v) Housemaids
- vi) Kiosk Owners
- vii) Clerks
- viii) High school students
- ix) Primary school students
- x) Nursery school teachers
- xi) Barbers

The representation was as follows for the urban study area;

**Table 28: Stratification of Subjects (Nairobi); Occupation**

Occupation	No. of Subjects
i) Unemployed	36
ii) Housewives	32
iii) Watchmen	24
iv) Shopkeepers	21
v) Housemaids	20
vi) Kiosk-owners	17
vii) Clerks	16
viii) High school students	14
ix) Primary school students	10
x) Nursery school teachers	7
xi) Barbers	3
<b>Total</b>	<b>200</b>

The representation of the variable 'occupation' in both study areas was worked out with the assistance of personnel from the District Offices and was not based on any documented information.

Using the 1979 Population Census Figures as the yardstick for numerical permutations (excluding the age-group 0-9), the stratification of the three broad categories of formal education was as follows;

**Table 29: Comparative Presentation of Subjects in Study Areas; Formal Educational Level**

Formal Educational Level	% ages Mutitu Sub-Location	No. of Subjects	% ages Kangemi	No. of Subjects
No formal education	30	60	30	60
Primary Educaion (1-7)	57	114	40	80
Secondary Education +	11	22	28	56
Not stated	2	4	2	4

S.E. - Secondary level education

No. of ss - Number of subjects

% ages - Percentages

The three broad 'educational-level' categories were further proportionally stratified on the basis of the five age-groups used in the study. Again, the yardstick for numerical permutations was the 1979 Population Census Figures.

**Table 30: Proportional Stratification of Subjects; Formal Educational Level Against Age-Group (Nairobi)**

Age-Group (in years)	N.F.E % ages	No. of ss	P.E. % ages	No. of ss	S.E. % ages	No. of ss
10 - 19	13	8	33	27	22	12
20 - 29	25	15	34	28	50	28
30 - 39	20	12	18	14	20	12
40 - 49	18	11	9	7	4	2
50 +	23	14	5	4	3	2
Not stated	1					
<b>Total</b>		<b>60</b>		<b>80</b>		<b>56</b>

- Key**
- N.F.E. - No formal education
  - P.E. - Primary level education
  - S.E. - Secondary level education
  - No.of ss - Number of subjects
  - % ages - Percentages

**Table 31: Proportional Stratification of Subjects; Formal Educational Level Against Age-Group (Masaku)**

Age Group (in years)	N.F.E. % ages	No. of ss	P.E. % ages	No. of ss	S.E. % ages	No. of ss
10 - 19	15	9	58	66	38	8
20 - 29	10	6	21	24	48	11
30 - 39	17	10	11	13	8	2
40 - 49	18	11	5	6	3	1
50+	40	24	4	5	1	0
Not stated						
Total number of ss.		60		114		22

**Key**

N.F.E. - No formal education

P.E. - Primary level education

S.E. - Secondary level education

No. of ss - Number of subjects

% ages - Percentages

(Table continued on page 137)

4.3 Criteria For Desired Responses Vis-a-Vis

Selected Posters

On the basis of the preliminary study, the researcher was able to determine that the identification of a minimum of at least sixty percent of at least two aspects of the visual material presented to them (either image and colour or Image and text) enabled the subject to interpret the information within the poster as desired.

Table 32: Range of Desired Responses; Prints 'a' and 'b'

	Print 'a'	Print 'b'
<u>Colours</u>	Gold, Red, Blue Black	Dark Brown, Red, White
<u>Images/Objects</u>	i) Crowd composed of people from diverse races  ii) Three faces symbolising three different races (Asiatic, Negroid and Caucasian)	Large head or face, Mountain (Kenya), Maize plants  Flowing blood, Roots, Jembe (In extended arm), Panga (in extended arm)

(Table continued on page 137)

Table 33: Range of Errors: Prints 'a' and 'b'

<u>Interpretation</u>	Print 'a'	Print 'b'
	<p>i) Peaceful co-existence, unity and equality of all races is essential and possible.</p> <p>ii) Relevant authorities from countries the world over should recognise the need for basic individual human rights for its citizens.</p>	<p>An appreciation of a personality from Kenya's colonial history and the values he propagated or symbolised</p>

**Table 33: Range of Errors; Prints 'a' and 'b'**

	Print 'a'	Print 'b'
<u>Colours</u>	Grey, Brown, White	
<u>Images/Objects</u>	-	King
<u>Interpretation</u>	Religious meeting; Dance; Waiting for the Almighty to come down; European and Asian policemen ; Don't know ;	Farmer; Strong man; A man with problems; A sick man; A man in a forest; Don't know.;
<u>Interpretation</u>	Misuse of earth's resources vis-a-vis the earth's productive and carrying capacity	Misuse of earth's resources vis-a-vis the earth's productive and carrying capacity

**Table 35: Range of Errors; Prints 'c' and 'd'**

	Print 'c'	Print 'd'
<u>Colours</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	Attentive naked children Don't know	Attentive naked children Don't know

**Table 34: Range of Desired Responses; Prints 'c' and 'd'**

	Print 'c'	Print 'd'
<u>Colours</u>	Yellow, Black, Blue White, Brown	Black, White, Grey
<u>Images/Objects</u>	i) Forces of people of all races. ii) Desert wastelands iii) Chimneys emitting smoke iv) Malnourished children with distended bellies	i) Faces of people of all races. ii) Desert wastelands iii) Chimneys emitting smoke iv) Malnourished children with distended bellies
<u>Interpretation</u>	Misuse of earth's resources vis-a-vis the earth's productive and carrying capacity	Misuse of earth's resources vis-a-vis the earth's productive and carrying capacity

**Table 35: Range of Errors; Prints 'c' and 'd'**

	Print 'c'	Print 'd'
<u>Colours</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	Attentive naked children Don't know	Attentive naked children Don't know

**Table 36: Range of Desired Responses; Prints 'e' and 'f'**

	Print 'e'	Print 'f'
<u>Colours</u>	Dark brown, Light Brown, Purple, White, Red .	Black, Blue, White, Black, White, Red
<u>Images/Objects</u>	Three super imposed faces of women symbolising three different races .	Side view of a man's head enclosed in a circle with 'strokes' emanating from the mouth.
<u>Interpretation</u>	Appeal for equal rights, equal opportunities and equal responsibilities for women .	A man afflicted with Tuberculosis expelling germ-infested phlegm through the mouth.

**Table 37: Range of Errors; Prints 'e' and 'f'**

	Print 'e'	Print 'f'
<u>Colours</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	Women should stay together. Don't know .	A man in hospital. A sick man talking.. Don't know .

**Table 38: Range of Desired Responses; Prints 'g' and 'h'**

	Print 'g'	Print 'h'
<u>Colours</u>	Black, White	Black, White, Red
<u>Images/Objects</u>	i) Man defaecating	-
<u>Images/Objects</u>	ii) Cow grazing	-
<u>Images/Objects</u>	iii) Part of meat carcass	-
<u>Images/Objects</u>	iv) Roasting infected meat	-
<u>Images/Objects</u>	v) Man using toilet	-
<u>Images/Objects</u>	vi) Inspection of cow carcass	-
<u>Images/Objects</u>	vii) Cooking inspected meat	-
<u>Interpretation</u>	Prevention of tape-worm infection,	Prevention of cholera.

**Table 39: Range of Errors; Prints 'g' and 'h'**

	Print 'g'	Print 'h'
<u>Colours</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	Grazing beef cattle that are subsequently roasted and eaten. Don't know.	Don't know.

**Table 40: Range of Desired Responses; Prints 'j' and 'k'**

	Print 'j'	Print 'k'
<u>Colours</u>	White, Blue, Black Yellow, Red	White, Black, Blue Red
<u>Images/Objects</u>	Different members of a family using blue band margarine .	Woman using deodorant from spray can .
<u>Interpretation</u>	Advertisement of blue band margarine which suggests that the product is good for the family.	Advertisement of 'Sure' deodorant spray .

**Table 41: Range of Errors; Prints 'j' and 'k'**

	Print 'j'	Print 'k'
<u>Colours</u>		
<u>Colours/Objects</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	-	Application of medicine Don't know

**Table 42: Range of Desired Responses; Prints 'l' and 'm'**

	Print 'l'	Print 'm'
<u>Colours</u>	White, Blue, Red, Green, Orange .	Black, White .
<u>Images/Objects</u>	An assortment of fruits and vegetables and a packet of cooking fat (Kimbo) .	Infected man defecating and stages leading to spread of infection/ methods of preventing infection.
<u>Interpretation</u>	Advertisement of cooking fat .	Prevention of the spread of internal parasites .

**Table 43: Range of Errors; Prints 'l' and 'm'**

	Print 'l'	Print 'm'
<u>Colours</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	-	A kind of shoe . Don't know ,

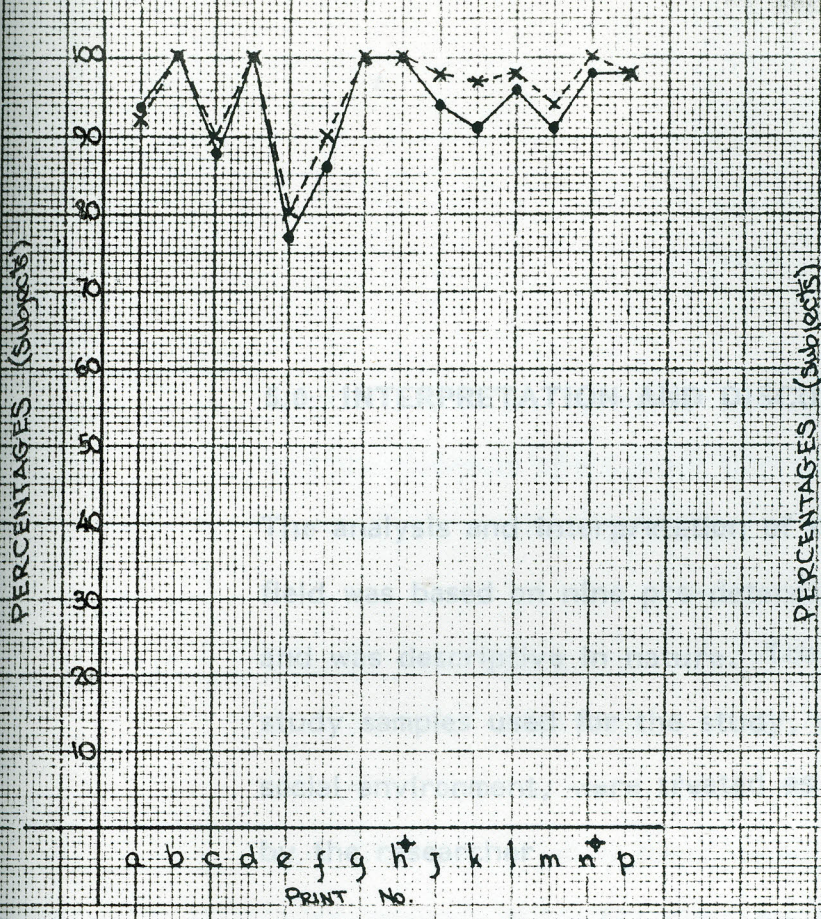
**Table 44:** Range of Desired Responses; Prints 'n' and 'p'

	Print 'n'	Print 'p'
<u>Colours</u>	Black, White, Red .	Red, Blue, Yellow, Green, Brown .
<u>Images/Objects</u>	-	Silhouetted face of miner (Mchimba Madini) Super imposed against map of Namibia and red 'cloud' suggesting plunder
<u>Interpretation</u>	Vaccination of infants against six diseases ,	Appeal to stop the plunder of Namibia's natural resources .

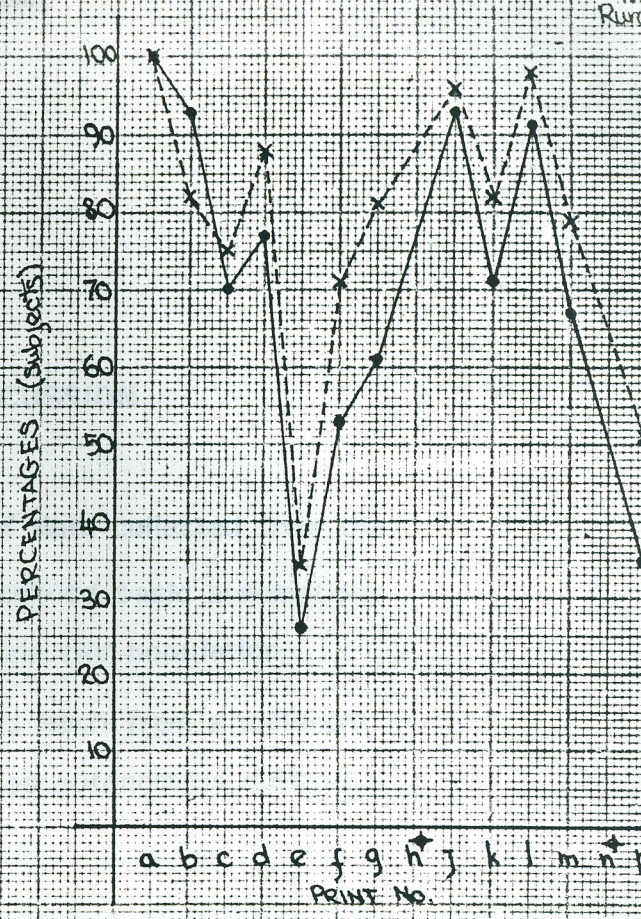
**Table 45:** Range of Errors; Prints 'n' and 'p'

	Print 'n'	Print 'p'
<u>Colours</u>	-	-
<u>Images/Objects</u>	-	-
<u>Interpretation</u>	Don't know .	Watchman; angry policeman; don't know .

GRAPH 1. Correct Responses To Color : Urban Vs. Rural Ss



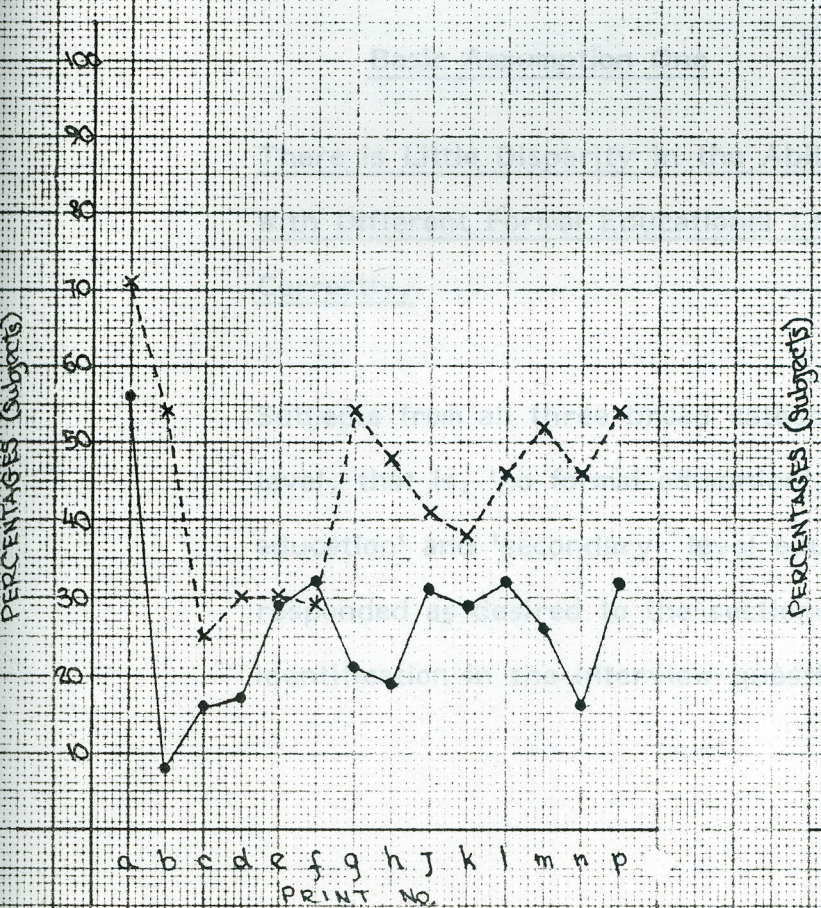
GRAPH 2. Correct Responses To Images : Urban Vs. Rural Ss



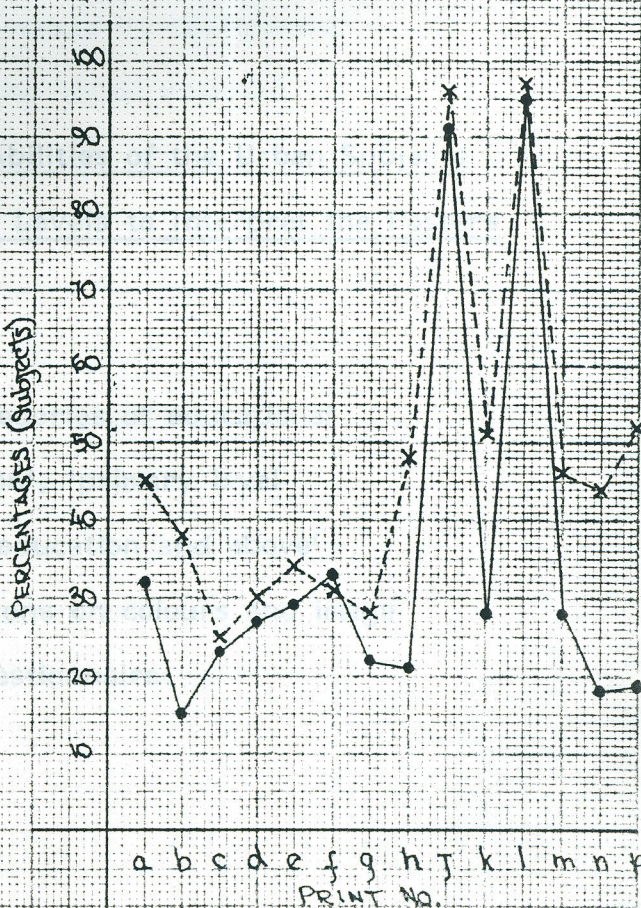
KEY  
 x ——— x Urban Subjects  
 • ——— • Rural Subjects

Ss - Subjects  
 \* ——— \* No Image In poster

GRAPH 3. Correct Responses To Text : Urban Vs. Rural Ss



GRAPH 4. Correct Overall Interpretation : Urban Vs. Rural Ss



## 5.0 INTERPRETATION AND DISCUSSION

The analysis and interpretation of data collected from the field was based on nine pre-determined basic assumptions and was descriptive in nature. The two population study samples used for the study, each from a different social environment, were treated as autonomous entities by the researcher.

The average time taken to respond to one poster was approximately eight minutes.

### 5.1 BASIC ASSUMPTIONS

#### Basic Assumption One

There is Little Disparity in the Abilities of the Urban Subjects With Different Formal Educational Levels to Interpret the Posters Correctly.

Subjects from all three broad categories of educational level, that is, 'no formal education', 'primary level education' and 'secondary level education and above' responded as desired to the sections on colours and image identification in the interview-questionnaire.

Prints 'e' and 'p', however, were consistently difficult and the subjects spent more time on these two prints than on the others.

Slightly over fifty percent (fifty-six percent) of the subjects who were able to 'read' the images were from the 'secondary level and above' category. The remainder were from the 'primary level' category. All the 'primary level' category subjects, who were able to identify the images, were from standard five to standard seven.

Unlike many of the other prints where the desired identification of images did not necessarily correspond to the desired interpretation of the visual material, this was not true for Prints 'e' and 'p'. All the subjects who correctly identified the images in these two prints also interpreted the images as desired.

Prints 'a', 'b', 'c' and 'd' which all had an average of eighty-five percent of the subjects responding as desired to the images only had an average of twenty five percent of the subjects interpreting the respective images as desired. Again just over fifty percent of the subjects were from the secondary level

of education category. However, for the four prints an average of four percent of the subjects were from the 'no formal educational level' category. Some twenty percent of the subjects were not able to identify the images in print 'g'. Nevertheless, more than three times that number (seventy percent) were not able to attach meaning to the series of images on this print. Eighty-three percent of those able to give meaning to print 'g' were from the 'secondary level' category of education. The remainder were from the 'primary level' category. None were from the 'no formal education' category. For prints 'f' all the subjects in the 'secondary education' category responded, to the section on image identification, as desired. Seventy five percent of the 'primary education' category subjects (sixty in number) responded as desired and ten percent of the subjects with no formal education responded as desired to the same section of identification of images. Just under a half of all the subjects were able to interpret the print as desired. All were from the 'secondary' and 'primary' categories. For prints 'j' and 'i' there was a direct correlation between the desired responses

to the section on image identification and the desired interpretation. This pattern of responses was similar to the pattern for print 'e' insofar as the responses to image identification being more or less the same as the responses to interpretation. However, the responses for the two former prints was from nearly one hundred percent of the subjects and that is for both image identification and interpretation. One reason for this is that the two products advertised in the posters are so widespread as to be easily identified even by a non-literate section of the viewing public. They would seem to recognise the message as manifested in the images without having to read the text.

Print 'k' was in the same general class as prints 'j' and 'l'. However, the responses to this particular print were significantly poorer when compared to the latter two. Approximately eighty percent of the subjects were able to respond as desired to the section on images whereas fifty percent were able to interpret the same print as desired. Of these, approximately ninety percent were from the 'secondary education' category and the remainder from the 'primary education' category. None exist a big disparity between the three broad categories

was from the 'no formal education' category. Prints 'h', 'm' and 'n' were designed with relatively more emphasis on the text rather than the image. There was a more clear-cut relationship. Nevertheless, print 'm' elicited about eighty percent correct responses on the section on desired responses to images. Only fifty percent of these were, however, able to read the text and correctly relate it to the sequence of images. Of these fifteen percent were from the 'primary education' category and the rest from the 'secondary education' category. None were from the 'no formal education' category. For prints 'h' and 'n' the subjects able to read the text were able to interpret the text as desired. These were fifty percent and approximately forty-five percent respectively.

A large majority of the subjects able to interpret the visual material as desired from the 'primary education' category belonged to standard five, six or seven level of formal primary education.

With regard to recognition of images in the selected poster-prints by the subjects, there did not appear to exist a big disparity between the three broad categories

of formal education level, though for some of the prints ('e' and 'p' most notably) the level of education of the subject appeared to have direct bearing on the ability of the subject to recognise the images.

Nevertheless, for the section on 'interpretation', the proximity of the responses to the range of desired responses tended to improve with the increasing level of formal education. As such, there was quite a distinct disparity in the abilities of the urban subjects to interpret the selected visual material on the basis of their formal educational levels.

### Basic Assumption Two

#### There is Little Disparity in the Abilities of the Rural subjects With Different Formal Educational Levels to Interpret the Posters Correctly

Subjects from all the three general classifications of educational level, that is 'no formal education', 'primary level education' and 'secondary level education and above' were able to respond uniformly to the

sections in the questionnaire on colour identification and image identification. The pattern was similar to the urban subjects' one with respect to the colour identification and image identification sections of the questionnaire.

However, the correct identification of colours and images did not necessarily result in the desired or correct interpretation of the prints. Over ninety percent of the subjects responded satisfactorily to the section on colour identification in print 'b' but only fifteen percent interpreted the print as desired. Of these, twenty two percent (eight subjects) were from the 'no formal education' and 'primary education' categories of educational level (two and six-subjects respectively). The relative illegibility of the text on this print may have affected the abilities of the subjects to fully interpret the print as desired. Most of the subjects in the 'secondary level' category who were able to correctly interpret the print, relied on the images in the print to do so. Only five subjects, representing just under twenty-five percent of the subjects from the 'secondary education level' category of formal education, were able to read the text on the print.

Print 'a', insofar as the correct or the desired responses to 'image identification' was concerned, received the best response of all the prints used in the study. Additionally, the highest number of subjects correctly read the text accompanying the illustration/s vis-a-vis the other prints. Fifty-five percent of the subjects were able to read the text in print 'a'. However only approximately thirty-three percent of all the subjects were able to interpret the print as desired. These consisted of all the subjects from the 'secondary education' category and approximately one third of the 'primary education level' subjects (thirty eight in number)

In all sub-sections of the interview/schedule questionnaire, that is, 'colour', 'images', 'text' and 'interpretation' the responses to print 'd', a black and white version of print 'c', were consistently more correct than those to print 'c' itself. For prints 'c' and 'd', seventy and seventy seven percent of the subjects, respectively, were able to correctly identify the images. Sixteen and seventeen percent, respectively, were able to read the text. Correct interpretation of the prints was correspondingly twenty-three and thirty

two percent. The nine percent difference constituted subjects belonging to the 'primary level' category.

images. As with print 'e', most of those subjects

The subjects able to read the text in print 'e' were able to consequently interpret it. Only these approximately twenty six percent of all the subjects were able to identify the images. None were from the 'no formal education' category and all the 'primary education' were from between standards five and seven. The novelty of this print to the subjects was emphasised by the difficulty most of them experienced in trying to interpret the images before reading the accompanying text. to image identification.

Approximately fifty-five percent of the subjects were able to correctly identify the images in print 'f'. However only thirty-three percent were able to read the text and interpret it as desired.

Sixty-five percent of the subjects were able to identify images in print 'g'. Only slightly over twenty percent were able to read the accompanying text and to interpret the print. Only the subjects able to read and understand

the prints 'h' and 'n' were able to give them meaning. the text were able to identify the super-imposed images. As with print 'e', most of those subjects were able to read the text in either of the prints. These poster prints were typographic. Prints 'j' and 'k' were interpreted correctly by over ninety percent of the subjects. However, only thirty and thirty-two

As with the urban subjects, the rural subjects from the three broad categories of formal education did not have as much difficulty with colour and image identification as with the reading of text and overall interpretation.

Prints 'e' and 'p' were the notable exceptions with regard to image identification.

Nonetheless, for the sections on 'text' reading and 'interpretation' the proximity of responses to the range of desired responses tended to improve proportionally to the level of formal education.

As such, there was a distinct disparity in the abilities of the rural subjects to interpret the selected visual material as desired by the researcher. The limitation was, apparently, the level of education.

the prints 'h' and 'n' were able to give them meaning. Approximately twenty and fifteen percent respectively were able to read the text in either of the prints. These poster prints were typographic. Prints 'j' and 'i' were interpreted correctly by over ninety percent of the subjects. However, only thirty and thirty-two percent of the subjects from either environment were actually able to read the text.

The subjects able to read the text in print 'k' were the ones able to interpret it as required. These were approximately twenty eight percent of the total number of subjects. All the subjects were from either the 'secondary level' of formal education or the 'primary level' of formal education. None from the 'no formal education' category were able to interpret the print as desired.

Nearly seventy percent of the subjects were able to correctly identify the images in print 'm'. Approximately twenty-six and twenty eight percent respectively were able to read the text and interpret the print as desired. None was from the 'no formal education' category.

The novelty of the graphic mose used in print 'p' was suggested by the small number of subjects able to identify the super-imposed images. As with print 'e', most of those subjects able to read the text experienced little difficulty in interpretation of the print.

As with the urban subjects, the rural subjects from the three broad categories of formal education did not have much difficulty with colour and image identification as with the reading of text and overall interpretation.

Prints 'e' and 'p' were, significantly, the most difficult.

Nonetheless, for the sections on text and interpretation the proximity of responses to the range of desired responses tended to improve proportionally to the level of formal education.

There, indeed, was a significant disparity across the spectrum of rural subjects in-so-far as interpretation of visual material was concerned.

### Basic Assumption Three

#### There is Little Disparity in the Abilities of the Urban Subjects With Different Occupations to Interpret the Posters Correctly

Only the four occupations with the highest representation in the population sample were considered for comparison. Out of a possible eleven, the four with the highest representation were in decreasing order of importance, unemployed, housewives, security watchmen and shopkeepers. These comprised approximately fifty-six percent of the total number of subjects.

The watchmen, most of whom did not have an education of above standard five 'primary level', experienced the greatest difficulty in identifying the images in the prints particularly the relatively less conventional ones like 'b', 'e' and 'p'. Nineteen out of the twenty four watchmen could recognise only the face and all could not give the desired meaning. Of the five that could recognise other images in the print, three had received standard seven level of formal education. The super

imposition of images in print 'p' seemed to overwhelm and confuse them. As with print 'b', in print 'p' only the face was recognised by the watchmen and most of them thought it represented something other than what the actually meant to represent. These apparent difficulties in interpretation were relatively less marked for the other more conventional prints. A greater number of watchmen from the lower primary level of formal education could interpret prints 'a', 'c', 'd', 'f', 'g', 'j', 'l' and 'm' than they could prints 'e', 'b' and 'p'.

The majority of the unemployed were young men and women who had a minimum formal education level of form three. None of these experienced difficulties with the interpretation of the prints with the exception of prints 'b' and 'e'. This category of subjects experienced the least difficulties compared to the other categories. It should be noted that they had a relatively higher level of formal education.

The majority of the housewives in the population sample had received standard five to seven level of formal education. A few of them had received secondary

education. Correct identification of images for this group seemed to improve with the educational level of the subject. Prints 'b', 'e' and 'p' presented the greatest difficulties. In print 'e' only the women with a secondary school level of education were able to give meaning to the three super-imposed images of women representing women of three different races. However, all the women were able to correctly identify the face that symbolised the African woman.

The shopkeepers, most of whom were in the primary school category (standard five to seven) did not have as much difficulties with the interpretation of prints as did the housewives.

Fifteen out of twenty one of the shopkeepers were able to correctly identify the images in print 'e' and interpret it as desired. None had any difficulties in reading the text in the 'typographical' prints 'h' and 'n' whereas only six of the watchmen were able to read the same text.

There was a distinct disparity in the abilities of urban

small scale farmers, primary school pupils, housewives people belonging to different categories of occupation with regard to the interpretation of the poster prints. The watchmen, the group with least formal education, experienced the greatest difficulty in correctly interpreting the selected prints. The shopkeepers, most of whom had a primary level of education were able to interpret the prints to the same standard as the subjects with a secondary level of education.

#### Basic Assumption Four

There is Little Disparity in the Abilities of the Rural Subject With Different Occupations to Interpret the Posters Correctly

Only the four categories with the highest representation in the population sample were used for comparison. Out of a possible seven, the four with the highest representation were, in decreasing order of importance, sections on image identification and colour identification and poor responses to the sections on reading of text and interpretation. The majority of small scale farmers were

small scale farmers, primary school pupils, housewives and high school students. These four categories constituted eighty eight and a half percent of the rural population sample.

Seventy five percent of the subjects were small scale farmers from the "no formal education" class. Despite this, they responded as well as the subjects with formal education on the sections in the questionnaire on image and colour. The section on the image identification of print "b" was responded to much better by the farmers than by any other category in the rural population sample despite having, as a group, the lowest level of formal education. Considering that this particular graphic mode was relatively unconventional, the researcher believed that this print would be difficult for the farmers to correctly identify the images. However, the majority of them could not give the print any specific meaning that was close to the desired meaning or interpretation. For most of the other prints that was the general pattern. There was good responses to the sections on image identification and colour identification and poor responses to the sections on reading of text and interpretation. The majority of small scale farmers were

in the 'no formal education' class and a considerably smaller number were in the 'primary education' class.

The housewives' ability to interpret the visual material tended to be determined by their formal educational levels. The ten, out of a possible thirty two, housewives who interpreted the print 'e' as desired had received 'upper primary' and 'secondary' levels of formal education. This was one of the prints that was relatively unconventional.

The abilities of the primary school pupils were directly proportional to the class they were in. Those in the lower class (standard one to four) experienced more difficulties in the interpretation of the prints than those in the upper classes (standard five to seven).

The high school students had the least difficulties in interpreting the prints. Most of the subjects able to interpret print 'b' as desired by the researcher were from this group.

Though occupation did not influence 'significantly' the abilities of the subjects to correctly identify the images and colour in the prints, there was a notable disparity in the abilities to correctly interpret the selected graphic representations.

#### Basic Assumption Five

There is Little Disparity in the Abilities of the Urban Subjects in Different Age-Groups to Interpret the

Posters Correctly

Subjects were divided into five age-group categories and the stratification was based on the 1979 Population Census Figures.

The age group with the higher representation was the '20-29' age group. This group experienced the least difficulties in the interpretation of the selected visual material. Approximately seventy percent of the

subjects belonging to this group had received or were at the time of the study receiving either primary or secondary level of formal education. Slightly over half of this group had received or was receiving either upper primary (standard five to seven) or secondary level of formal education.

The '30-39' age-group class had fewer subjects than the '20-29' age group class that had received or were receiving secondary education or tertiary education at the time of the study. This class primarily consisted of shopkeepers, kiosk-owners, housewives, barbers and a few unemployed. More people within this group experienced difficulties in interpretation of the visual material, particularly the less conventional prints like 'e', 'b' and 'p'.

The '10-19' age-group like the '30-39' age group experienced difficulties in the interpretation of some of the selected visual material particularly the less conventional prints like 'e', 'b' and 'p'. Most of the subjects in this age group had received or were receiving only a primary level of formal education.

The difference in the abilities of the two age-groups '40-49' and '50+' to interpret the selected visual material as desired was almost negligible. Both of these groups experienced more difficulties than the other three groups.

The underlying influences were educational level and the category of occupation.

#### Basic Assumption Six

There is Little Disparity in the Abilities of the Rural Subjects in Different Age-Groups to Interpret the Posters Correctly

Subjects were divided into five age-group categories and the stratification was proportional to the 1979 Population Census Figures.

The age-group '20-29' experienced the least difficulties in interpreting the selected visual material. Slightly over half of the subjects in this age-group had received or were receiving formal education of upper primary or secondary level at the time of the study.

The age group '10-19' had the biggest number of subjects from the rural population sample. Most had received only primary level education at the time of the study and only the '20-29' age group experienced less difficulties in the interpretation of the selected visual material.

Whereas the subjects in the above two age-groups experienced few difficulties in the identification of images in most of the prints, subjects from age-groups '30-39', '40-49' and '50+' on the contrary experienced difficulty with many of the selected prints.

The underlying influence of the correct responses was the educational level and the category of occupation.

#### Basic Assumption Seven

There is Little Disparity in the Abilities Between Male and Female Subjects of the Urban Environment to Interpret the Posters Correctly.

On the basis of the 1979 Population census Figures the ratio of men to women in the urban area selected for the

study was approximately one to one. This ratio was used in the study population sample.

No disparity in the abilities of males and females was evident. The tendency was that the abilities of both the men and women (males and females) was influenced by the level of formal education.

#### Basic Assumption Eight

There is Little Disparity in the Abilities Between Male and Female Subjects of the Rural Environment to Interpret the Posters Correctly

On the basis of the 1979 Population Census Figures the ratio of men to women in the rural area selected for the study was approximately one to one. This ratio was used in the study population sample.

No disparity in the abilities of males and females was evident. The tendency was that the abilities of both the men and women (males and females) was influenced by formal education.

groups. **Basic Assumption Nine** Interpretation was

achieved by less than fifty percent of the subjects

There is Little Disparity in the Abilities Between the

Urban and Rural Subjects to Interpret the Posters

Correctly. a percent of the rural subjects satisfactorily

identified the images in print 'b', ten percent more than

The rural and urban environments were assumed to be

two quite distinct phenomena. the print correctly

compared to thirty eight percent for the urban subjects.

As separate entities, the abilities of the urban subjects

was compared with the abilities for the rural subjects

to interpret the visual material selected for the study.

print correctly.

With the exception of print 'f', a greater percentage

of the urban subjects interpreted the prints more

satisfactorily than the rural subjects. an subjects. Only

four prints were interpreted as desired by more than

The disparity between the two groups in the

interpretation of prints 'j' and 'l' was negligible. This

was the smallest disparity for any of the poster prints

between the two groups. subjects and only two prints

were interpreted as desired by more than half of the

Despite almost outright correct responses to colour and

image identification for prints 'a' and 'b' for both

groups, the correct or desired interpretation was achieved by less than fifty percent of the subjects from both groups.

Ninety three percent of the rural subjects satisfactorily identified the images in print 'b', ten percent more than the urban subjects. However, only fifteen percent of subjects were able to interpret the print correctly compared to thirty eight percent for the urban subjects.

The pattern for the remaining prints was that the ability to read the text determined the ability to interpret the print correctly.

The text in only five of the prints used for the study was read by more than half of the urban subjects. Only four prints were interpreted as desired by more than half the urban subjects.

In comparison, only one print was read correctly by more than half of the rural subjects and only two prints were interpreted as desired by more than half of the rural subjects.

The correct responses to 'colour' and 'image' identification in all the prints was significantly higher than those correct responses to 'text' and 'interpretation' sections of the interview schedule.

A higher percentage of urban subjects were able to satisfy the criteria for correct interpretation of each print more frequently than the rural subjects. The pattern of responses for each different print between the two groups was similar and the disparity for seven out of a possible fourteen prints was small. However, the disparity between the two groups in the ability to correctly interpret prints 'a', 'b', 'h', 'k', 'm', 'n' and 'p' was significant.

### Questionnaire B

An additional questionnaire to show the kind of visual media the subjects are dependent on and how frequently they use this media was developed.

#### Dependence on Visual Material for Communication

This information was collected after the initial interview schedule (A) was administered. This was done after and not before because in the preliminary

study it was noted by the researcher that the subjects were reluctant to respond to this schedule before they had gained the necessary confidence. When asked this same set of questions after interview schedule (A) had been administered, this group of people was more relaxed and willing to participate. This set of questions was asked to twenty four subjects during the preliminary or pilot study. Six before and six after the administration of questionnaire (A) in the urban area and six before and six after the administration of questionnaire (A) in the rural area. All the twenty four were from the three different educational level categories, three occupations and three different age-groups. For each set of six subjects, three were men and three were women.

This questionnaire also sought to know the form of visual media most relied on and which of the occupations demanded some kind of dependence on different forms of graphic representations.

Forty percent said they looked at books and

#### Dependence on Visual Material for Communication

Only eleven of all the subjects, eight of whom were from the rural area and all of whom were over the

age of thirty-five years, out of a possible four hundred said they did not rely at all on any kind of print media as a source of information. This suggests that among the younger people there is a high degree of dependence on some form of print media. ~~led through the spoken word.~~

#### Frequency of Reliance on Print Media

Seventy-nine percent of all subjects interviewed said that they look at some form of print media on a daily basis. Except for those that claimed not to depend on any form of visual material, the reminder, many of whom were the rural small scale farmers, said they looked at some form of print at least once a week.

All the subjects that said they relied on some form of print media. All indicated that newspapers, posters and calenders as the forms that were at their disposal.

Forty percent said they looked at books and magazines regularly.

Shop-owners (stewards), Kiosk-owners, teachers and

6.0 FINDINGS

6.1 Interpretation of Findings

students (primary and high school) said that the nature of their occupations required them to rely on visual material regularly. Ten (twelve percent) of the farmers said that they did not rely on visual material (print media) but instead communicated through the spoken word.

was very clear with prints 'a' and 'p'.

Print 'b', despite being a relatively less conventional print than some of the others, elicited correct responses to the section on image identification from nearly all the subjects. Of the non-photographic type of poster-prints it received the highest responses to the section on image identification from the subjects in the 'no-formal-education' class.

This was a departure from Holmes<sup>1</sup> postulation that educational level and 'sophistication' of the viewer were most pertinent in the identification of images.

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<sup>1</sup>A.C. Holmes, A Study of Understanding of Visual Symbols in Kenya (London: Overseas Visual Aids Centre, 1963), p.6

## 6.0 FINDINGS

### 6.1 Interpretation of Findings

The correct identification of images in the posters used for the study did not necessarily elicit correct interpretation of the posters. This was true particularly for prints 'a' and 'b'. The correct reading of the text as an isolated task did not always result in the correct interpretation of the prints either. This was very clear with prints 'a' and 'p'.

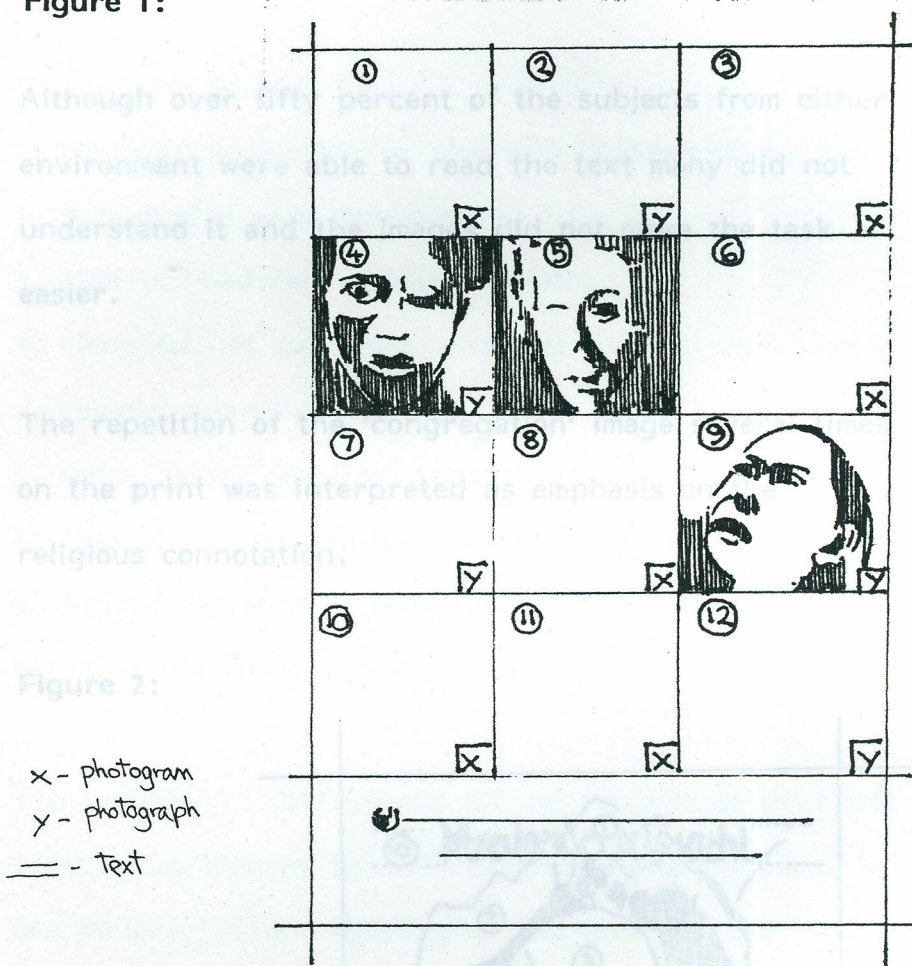
Print 'b', despite being a relatively less conventional print than some of the others, elicited correct responses to the section on image identification from nearly all the subjects. Of the non-photographic type of poster-prints, it received the highest responses to the section on image identification from the subjects in the 'no-formal-education' class.

This was a departure from Holmes<sup>1</sup> postulation that educational level and 'sophistication' of the viewer were most pertinent in the identification of images.

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<sup>1</sup>A.C. Holmes, A Study of Understanding of Visual and 12 were, Symbols in Kenya (London: Overseas congregation. Visual Aids Centre, 1963), p.6

Figure 1:

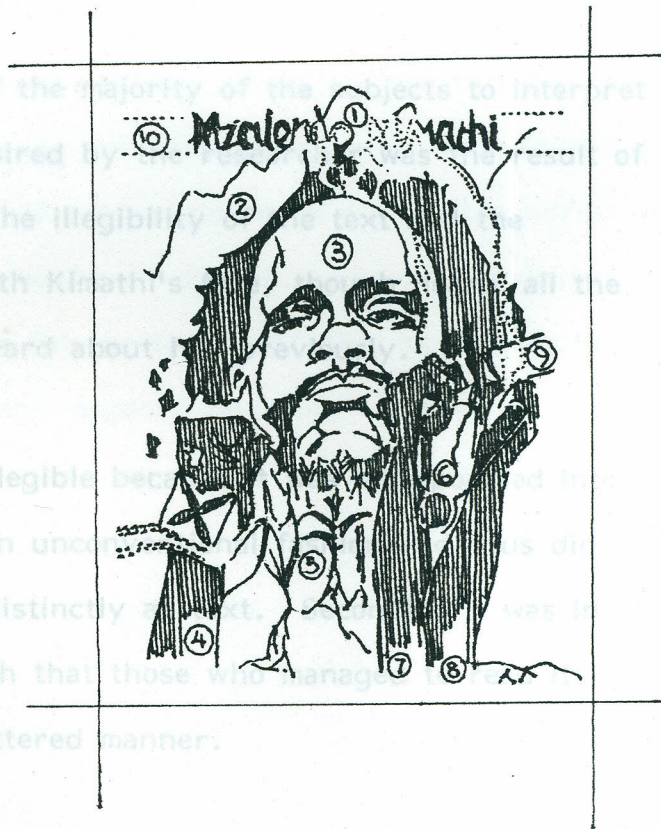


The errors in the correct interpretation of print 'a' tended to have a religious connotation. The close-up or enlargement of the head facing upwards (number 9 in the diagram) and the golden background of the print were the symbols in the print most frequently given religious connotations by the subjects from either environment. The segments numbered 1,2,3,6,7,8,10,11, and 12 were, occasionally, interpreted as a church congregation.

Although over fifty percent of the subjects from either environment were able to read the text many did not understand it and the images did not make the task easier.

The repetition of the 'congregation' image several times on the print was interpreted as emphasis on the religious connotation.

Figure 2:



1. Red part of text (10)
2. Mountain suggested by the void between upper line and shaded area representing hair.
3. face or head representing Kimathi
4. clenched fist super-imposed with symbol representing colonial identification tag.
5. maize plants/beard of Kimathi
6. 'Jembe' in clenched outstretched arm (8)
9. 'Panga' in clenched outstretched arm (7)
10. Text 'Mzalendo Kimathi'

The inability of the majority of the subjects to interpret print 'b' as desired by the researcher was the result of two factors. The illegibility of the text and the unfamiliarity with Kimathi's face, though nearly all the subjects had heard about him previously.

The text was illegible because it was incorporated into the design in an unconventional fashion and thus did not stand out distinctly as text. Secondly, it was in two colours such that those who managed to read it did so in a stuttered manner.

The subjects from the 'no formal education' category did

not have any problems with identifying most of the component images in the print and it is possible that if they had been able to identify the face it may not have been necessary for them to read the text (10) to have been able to interpret the print correctly. Almost two thirds of the 'no formal education' category was made up of the rural small scale farmers and most of them said the face looked like 'a man in a forest'. They said thick hair on the head (3) suggested a dense bush.

Although this response was not within the range of desired responses, this kind of influence made from an unconventional representation of the visible world by people with no formal education and no previous experience with this particular graphic mode, emphasises need for further exploration of new visual idioms .

5. Text - 'carrying capacity'.

6. More text (irrelevant).

7. Text more detail on the meaning of carrying capacity.

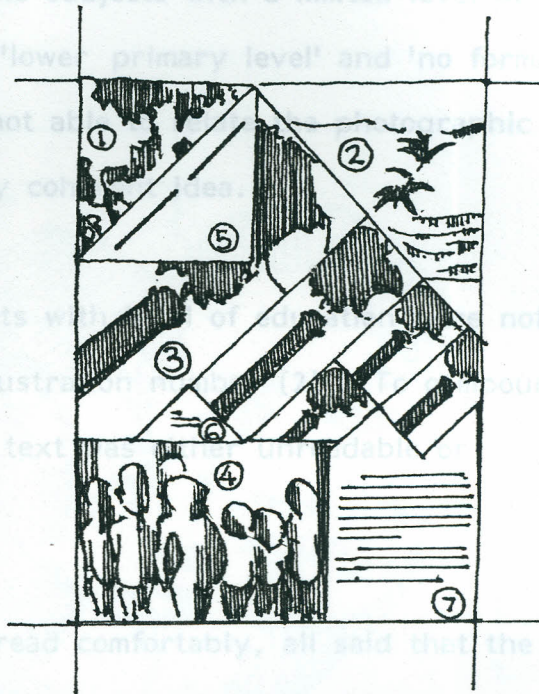
In all the sections of the interview schedule the black and white version of the print was better responded

Figure 3: 'd'). The subjects with a limited level of

formal education ('lowe primary level' and 'no education') were not able to identify the illustrations to any extent.

Most of the subjects with a limited level of education were not able to identify illustrations. In some cases, this difficulty was due to the text being incomprehensible.

For those able to read comfortably, all said that the series of images did not mean to them what the text



1. Illustration (photogram) symbolising people on planet earth.
2. Illustration of land exhausted of its fertility.
3. Chimney and smoke symbolising pollution.
4. Naked children symbolising malnourishment.
5. Text - 'carrying capacity'.
6. More text (irrelevant).
7. Text more detail on the meaning of carrying capacity.

In all the sections of the interview schedule the black and white version of the print was better responded

to (print 'd'). The subjects with a limited level of formal education ('lower primary level' and 'no formal education') were not able to relate the photographic illustrations to any coherent idea.

Most of the subjects with level of education were not able to identify illustration number (2). To compound this difficulty the text was either unreadable or incomprehensible.

For those able to read comfortably, all said that the series of images did not mean to them what the text suggested. Without the text, almost all said they would not have understood the intended message.

The subjects with very limited level of formal education and 'no formal education' said it was an illustration of naked children and chimneys.

1. Illustration symbolising African woman

2. Illustration symbolising European woman

If the poster was designed for a universal audience

3. Illustration symbolising Asian woman

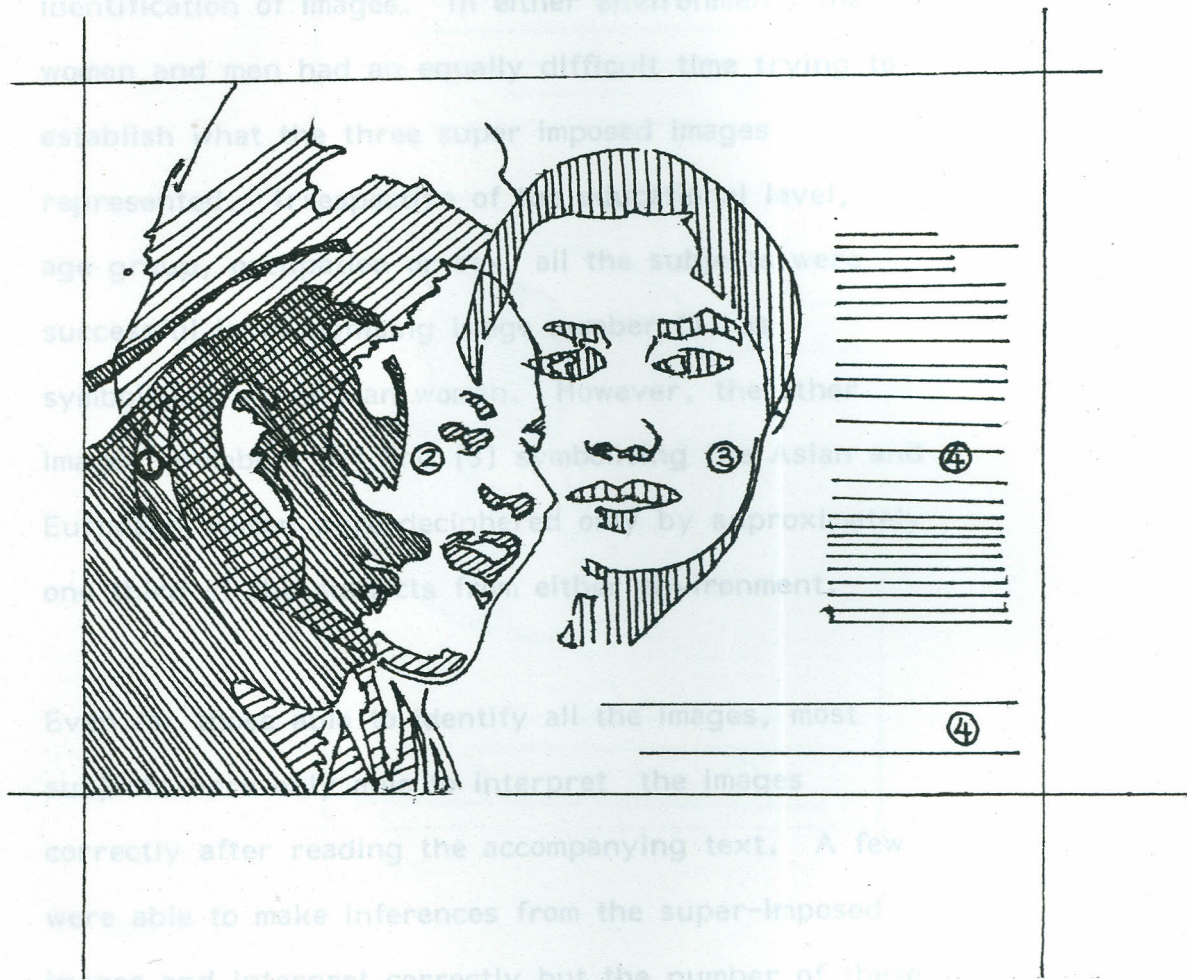
then the subject matter (symbols used) and the

4. text

arrangement of these symbols were not effective.

Of all the prints used in the study, this print gave

Figure 4:



1. illustration symbolising African woman
2. illustration symbolising European woman
3. illustration symbolising Asian woman
4. text

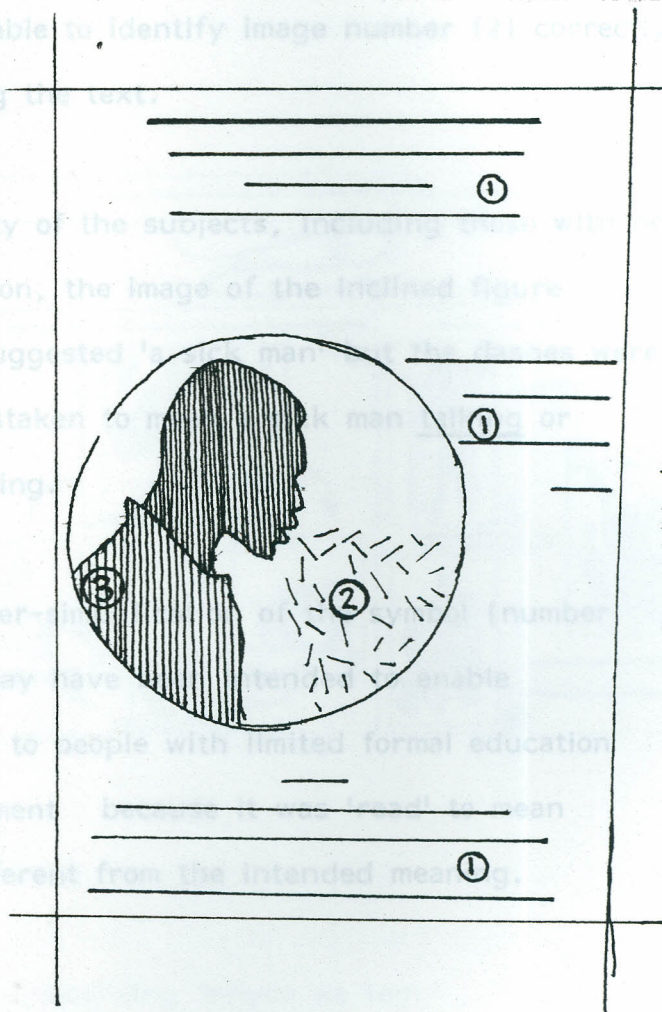
Of all the prints used in the study, this print gave

the subjects the greatest difficulty in the section on identification of images. In either environment, the women and men had an equally difficult time trying to establish what the three super imposed images represented. Irrespective of the educational level, age group, occupation or sex, all the subjects were successful in recognising image number (1) as symbolising an African woman. However, the other images, numbers (2) and (3) symbolising the Asian and European women were deciphered only by approximately one third of the subjects from either environment.

Even for those able to identify all the images, most subjects were only able to interpret the images correctly after reading the accompanying text. A few were able to make inferences from the super-imposed images and interpret correctly but the number of these was relatively negligible and all had at least a secondary level of formal education.

Despite the illustration of the infected person being a photograph, the subjects who could not read and understand the text were unable to correctly interpret this poster.

Figure 5:



1. text
2. illustration symbolising infection or germs
3. illustration symbolising infected person

Despite the illustration of the infected person being a photograph, the subjects who could not read and understand the text were unable to correctly interpret this poster.

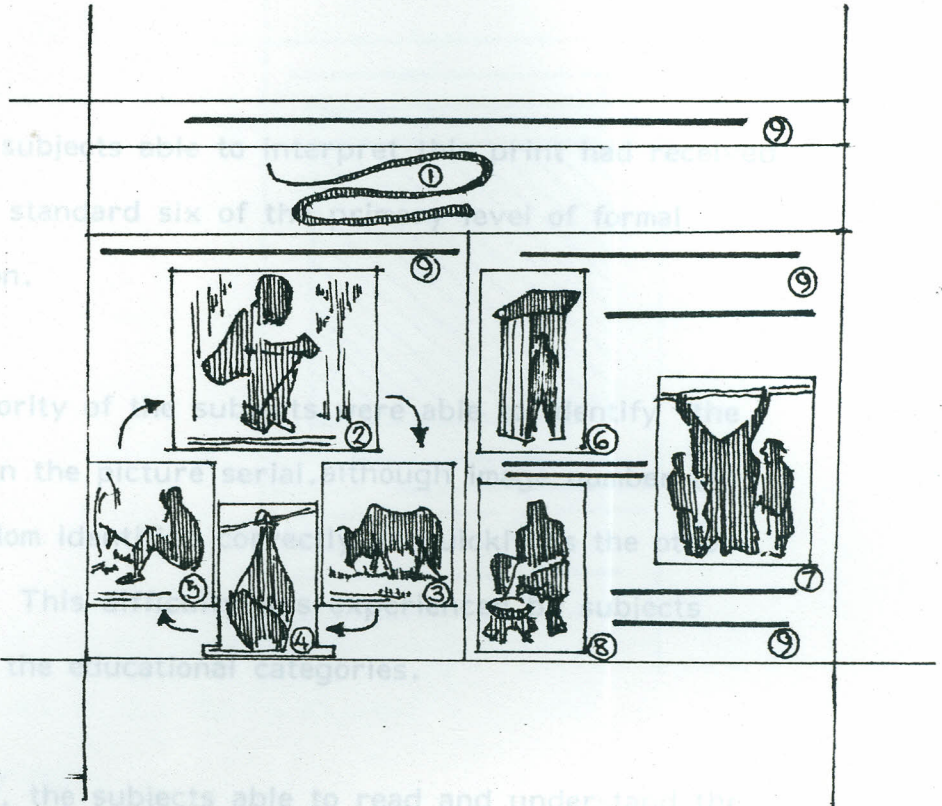
Most were unable to identify image number (2) correctly before reading the text.

To the majority of the subjects, including those with no formal education, the image of the inclined figure number (3) suggested 'a sick man' but the dashes were frequently mistaken to mean a sick man talking or saying something.

Thus, this over-simplification of the symbol (number (2)) which may have been intended to enable communication to people with limited formal education was an impediment because it was 'read' to mean something different from the intended meaning.

1. Illustration symbolising 'mnyoo we tagu'.
2. Illustration symbolising defaecating man.
3. Illustration symbolising cow feeding on infected fodder.
4. Illustration symbolising a slaughtered section of infected cow flesh.
5. Illustration symbolising cooking of infected cow flesh.
6. Illustration symbolising use of toilet to avoid spread of bacteria or virus.
7. Illustration symbolising inspection of cow flesh.

Figure 6:



1. Illustration symbolising 'mnyoo wa tegu' .
2. Illustration symbolising defaecating man.
3. Illustration symbolising cow feeding on infected fodder .
4. Illustration symbolising a slaughtered section of infected cow flesh.
5. Illustration symbolising cooking of infected cow flesh.
6. Illustration symbolising use of toilet to avoid spread of bacteria or virus.
7. Illustration symbolising inspection of cow flesh.

8. illustration symbolising the cooking of infected meat

9. text

All the subjects able to interpret this print had received at least standard six of the primary level of formal education.

The majority of the subjects were able to identify the images in the picture serial, although image number (4) was seldom identified correctly as quickly as the other images. This difficulty was experienced by subjects from all the educational categories.

However, the subjects able to read and understand the accompanying text were able to over-look the images that were ambiguous,

For those subjects able to read the text there were some whose understanding of the intended message was limited by words that were unfamiliar to them. Words like 'tegu', 'daima', 'iliyokaguliwa' and 'inavyoambukiza' consistently caused difficulty to those able to read the text.

Figure 7(a):

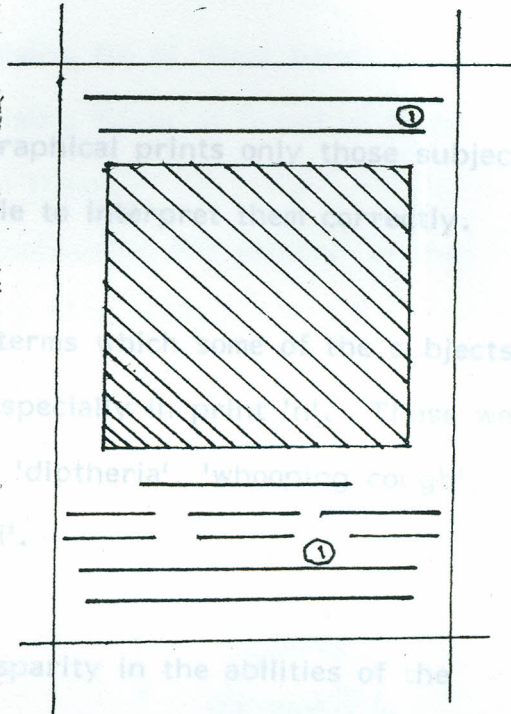


Figure 7 (b):

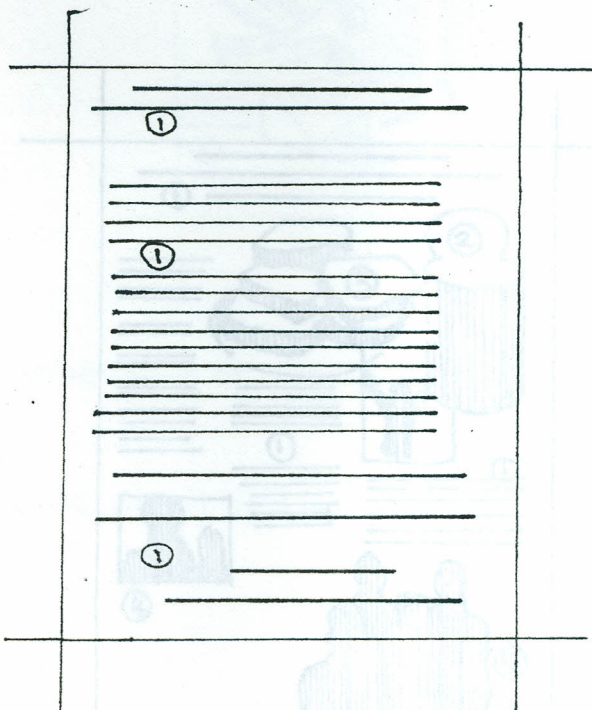


Figure 8(a):

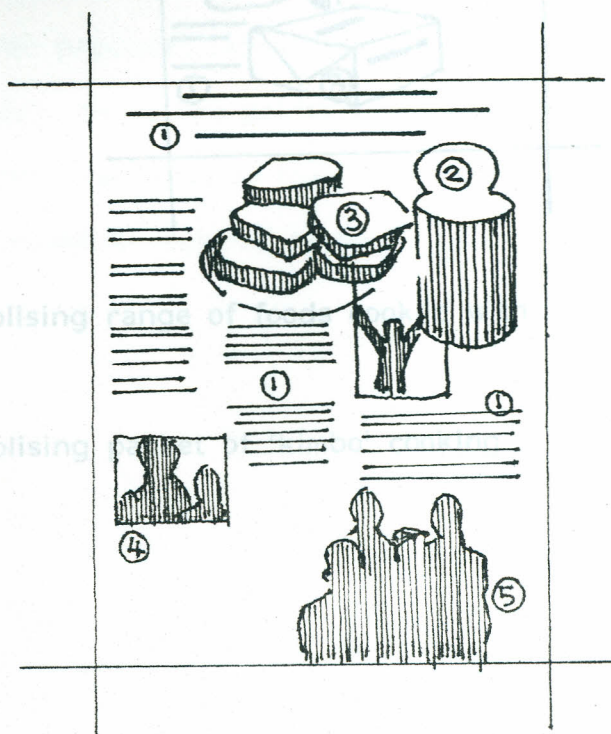
1. text

As these were typographical prints only those subjects able to read were able to interpret them correctly.

However there were terms which some of the subjects did not understand especially in print 'n'. These were terms like 'kifaduro', 'diphtheria', 'whooping cough', 'kupooza' and 'ukambi'.

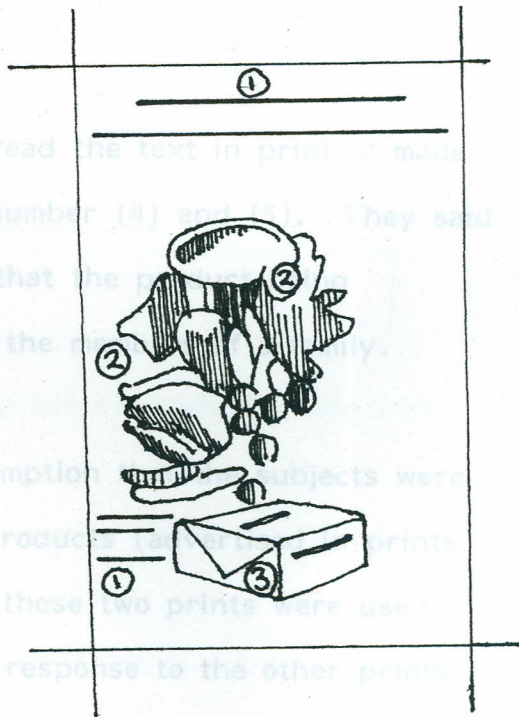
There was a great disparity in the abilities of the urban subjects and the rural subjects to interpret the two prints.

Figure 8(a):



1. text
2. illustration symbolising tin of 'Blue band' margarine
3. illustration symbolising slices of bread with the product applied on them.
4. (5) illustrations symbolising the effects of the product on members of a family.

Figure 8 (b):



1. text
2. illustration symbolising range of foods cooked with the product
3. illustration symbolising packet of 'kimbo' cooking fat.

The ability of nearly all the urban and rural subjects to interpret the two prints correctly (including nearly all the subjects with no formal education) was an indication of the subjects' familiarity with the products being advertised. It was also confirmed that these posters with a commercial function, that advertised products that are widespread, are readily consumed by the viewing public.

The subjects unable to read the text in print 'I' made inferences from images number (4) and (5). They said these images suggested that the product being advertised was good for the members of a family.

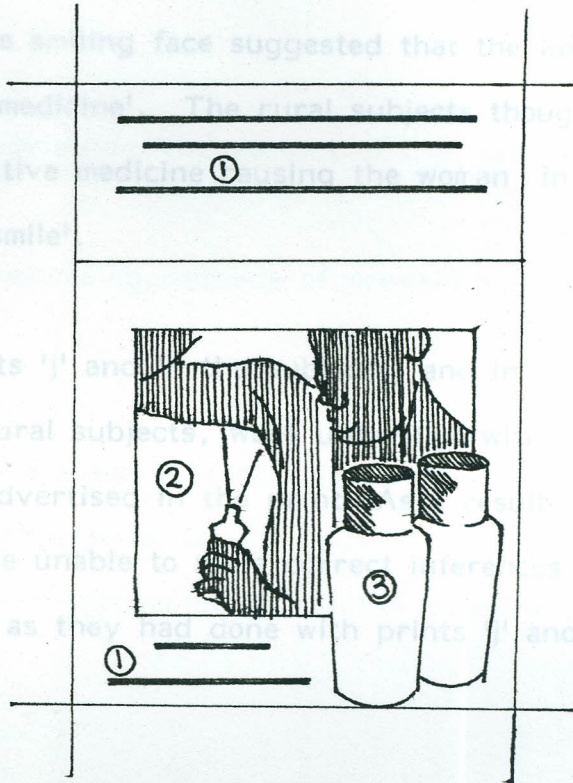
## 2. illustration symbolising use of product (Sura-Dev)

On the basis of the assumption that the subjects were familiar with these two products (advertised in prints 'j' and 'I' respectively) these two prints were used as controls to guarantee response to the other prints that may have had unfamiliar subject matter.

on interpretation were somewhat poorer.

Most of the subjects who were not able to read the text made inferences from image number (2). All

Figure 9:



1. text
2. illustration symbolising use of product (Sure Deo Spray)
3. illustration symbolising the product

In contrast to prints 'j' and 'l' which were in the same general class, the responses to print 'k' in the section on interpretation were somewhat poorer.

Most of the subjects who were not able to read the text made inferences from image number (2). All

thought that the smiling face suggested that the woman was 'applying medicine'. The rural subjects thought it must be effective medicine causing the woman in the illustration to 'smile'.

Relative to prints 'j' and 'l' the subjects, and in particular the rural subjects, were unfamiliar with product being advertised in the print. As a result of this they were unable to make correct inferences from the images as they had done with prints 'j' and 'l'.

Figure 10:

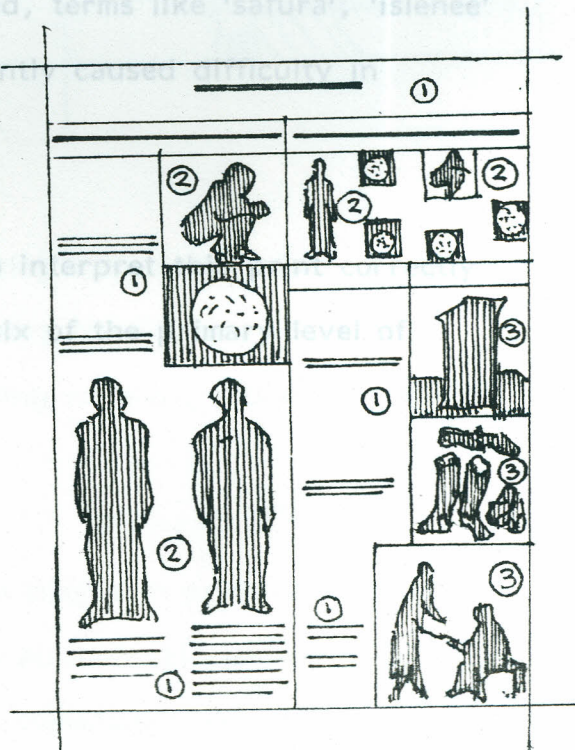


Figure 11:

1. text
2. illustration symbolising the vectors of the 'safura' disease.
3. illustration symbolising methods of preventing the disease.

The majority of the subjects were able to identify the images in the picture serial but as in print 'g' the limitation to correct interpretation was the inability to read the text.

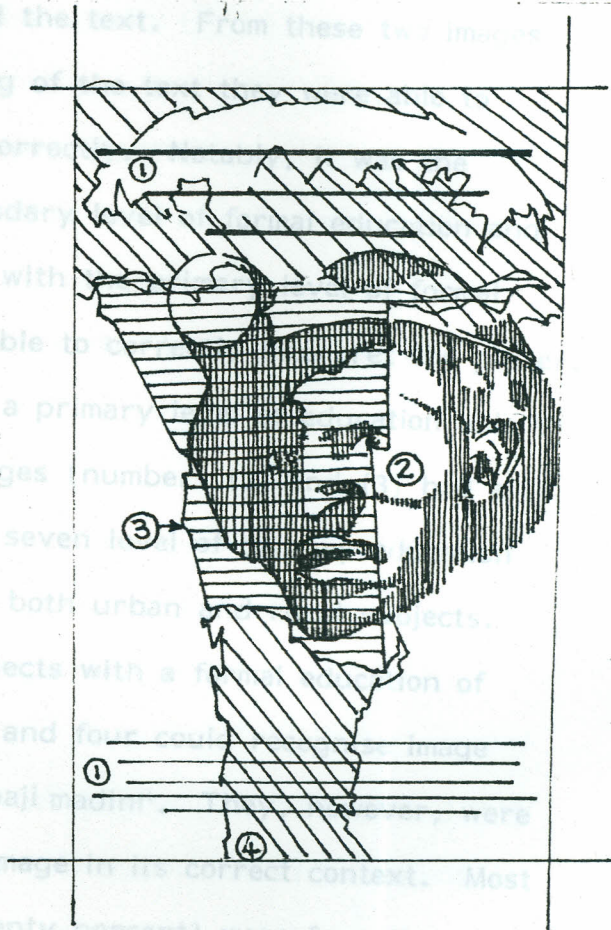
For those able to read, terms like 'safura', 'isienee' and 'mapafuni' consistently caused difficulty in understanding.

#### 1. Text

All the subjects able to interpret this print correctly had at least standard six of the primary level of formal education.

As with prints 'e', the images in print 'p' were superimposed. Only images number (2) (miner) and (3) (map of Namibia) were immediately recognisable to the

Figure 11:



1. Text.
2. Illustration symbolising a Namibian miner (or worker).
3. Illustration symbolising the country Namibia.
4. Red colour symbolising on-going plunder of Namibia's wealth.

As with prints 'e', the images in print 'p' were superimposed. Only images number (2) (miner) and (3) (map of Namibia) were immediately recognisable to the

subjects able to read the text. From these two images in addition to reading of the text they were able to interpret the print correctly. Notably, it was the subjects with a secondary level of formal education and some of the subjects with the primary level of formal education who were able to correctly interpret the poster. All the subjects with a primary level of education able to recognise the two images (numbers (2) and (3) had a standard five, six or seven level of primary education and this was true for both urban and rural subjects. About half of the subjects with a formal education of between standard one and four could recognise image number (2) as 'mchimbaji madini'. They, however, were not able to place the image in its correct context. Most of these subjects (seventy percent) were from the urban environment.

The majority of the subjects with the lower primary level of education and no formal education were not able to identify any of the images correctly. They identified image number (2) as 'askari ambaye amekasirika' or 'watchman'. Most watchmen in the urban area said this image was a watchman. The watchmen in the rural population sample said it

depicted 'an angry policeman' . before referring to the text to confirm or reinforce their responses. For the

Only a few (thirty percent) of the subjects with only secondary level education were able to infer 'the plundering of Namibia's resources' from the image number (4). This was so far both the rural and the urban areas.

For those subjects able to interpret the print correctly, the accompanying text augmented the impact of the images, particularly image number (2).

As with some of the other prints ('a', 'm', 'b' and 'k') the ability to read the text did not mean necessarily that the text had been understood and for print 'p' this was more common amongst the rural subjects than the urban subjects. Words like 'plunder', 'corporate', 'uncorporated', 'extract', 'resource' and 'territorial limits' frequently were misunderstood or not understood at all.

## 6.2 STYLE OF PRESENTATION

ere interviewed in Kiswahili or Kikamba (rural subjects). However, for To the section on interpretation, the subjects used the

images as a point of reference before referring to the text to confirm or reinforce their responses. For the typographical prints, however, the text was the only point of reference.

The use of photographs as some of the images in the prints did not necessarily simplify the task of interpretation for the subjects. Prints 'c' and 'd' were exactly the same. The only real difference was that print 'd' was in black and white. Yet the responses to 'c' were not the same as 'd'. And it is possible that the 'over-simplification' of the images in print 'f' enhanced rather than eliminated the problem of visual perception for the subject.

### 6.3 LANGUAGE

The text in seven of the prints ('b', 'g', 'h', 'j', 'l', 'm', 'n') was in Kiswahili. The remaining seven prints were in English.

The majority of the subjects were interviewed in Kiswahili or Kikamba (rural subjects). However, for the prints with the text in English the subjects read

out the text and were then at liberty to expound in the language they preferred. Most of them did so in Kiswahili or Kikamba.

In print 'a' the golden background colour of the print, which was an important point of reference for many of the rural subjects who thought it had a religious connotation, was paraphrased as 'langi wa muthanga' (Kikamba). This is the colour of the sand (whitish-yellow) they use for making building bricks. 'Rangi ya dhahabu' and 'manjano' were the acceptable versions of the colour gold in Kiswahili.

Where the subjects used Kiswahili or Kikamba to articulate themselves vis-a-vis the prints with text in English, in all instances this was within the range of desired responses.

#### 6.4 OCCUPATION

The educational level of the subjects was the primary determinant of the category of occupation the subject was most likely to fall into.

As such, the subjects with no formal education or with a primary level of formal education of between standard one and four were likely to be small-scale farmers, kiosk-owners and barbers. Those with primary education of between standard five and seven and secondary education were the shopkeepers (mainly standard five to seven), nursery school teachers, housewives, high school students and the unemployed (mainly urban unemployed who have just completed form two or form four).

Despite generally having a lower level of formal education than the high school students or the housewives, the shopkeepers were able to interpret the selection of visual material more thoroughly. This, it was assumed by the researcher was the result of the sustained exposure to visual material in the form of commercial posters which the shopkeepers are in constant contact with.

Though not as exposed to printed visual material as the shopkeepers were, the small scale farmers were able to identify more images in print 'b' (without

## 6.6 CONCLUSIONS

necessarily being able to give meaning to the print) than any other group. This was unexpected because this poster was the most stylised.

On the premise that identification of images was a task separate from the interpretation (placing of images into a specific predetermined context) then it was evident that the acquisition of a comprehensive visual vocabulary by the public was only possible through the sustained exposure to different graphic conventions.

## 6.5 AGE-GROUP AND SEX

These two variables were significant only in relation to educational level and occupation. Certain age-groups were characterised by having a greater number of subjects with a secondary level of formal education than others. Similarly, certain occupations had a greater number of women or men than others. The nursery school teachers were all women, the watchmen were all men and the housewives were all women. The other occupations had a more balanced representation of either sex.

## 6.6 CONCLUSIONS

Designing of posters for pedagogical purposes or for purposes of general information like health education, agricultural extension work or even domestic tourism promotion ought to bear in mind the perceptual abilities of the target audiences as well as the limitations governing graphic design possibilities intended for public consumption.

The use of language, choice of words and combination of these words is one aspect of design of the posters selected for the study that was clearly an obstacle in the reduction of uncertainty in the subject. Good examples of this from the posters used were posters 'g', 'm' and 'n'. The Kiswahili language used was sometimes difficult to understand to the extent that 'g', in particular, which was principally diagrams accompanied by Kiswahili text, proved too difficult to correctly interpret for the majority of subjects. This is a poster that required a good command of the Kiswahili language. The images in the poster were meaningless to the majority without the text.

Choice of type-face used in the design was an important factor. The text in print 'b' was highly stylized. So stylized that reduction of uncertainty in the subject was negligible. Type-faces like New Times Roman, Universe and

grotesque as in prints 'a', 'e' and 'j' respectively were easily legible and certainly this contributed in the reduction of uncertainty in the subjects in-so-far as these three posters were concerned. The English language did impede comprehension especially where unconventional language was used as in print 'p'.

Conflicting connotation of colour when it was used symbolically was yet another impediment. For those who could not read the text an attempt was made at attaching some significance to the colour scheme. More often than not the interpretation was not correct. Print 'p' is the best example of this poster of this problem. It is possible that the responses to this poster, in reference to the colour scheme, may have been inspired by cultural conditioning.

The relationship of the three components, colour, text and images must be subjected to more analysis in order that Graphic Designers develop visual idioms best suited to our own social environment.

The studies of this kind may be more effective in controlled environments like the classroom and hence have greater potential for scientific analysis. The increasing dependence on printed media that relies on graphic design certainly justifies the need for regular research.

## 6.7 RECOMMENDATIONS

Greater emphasis should be laid on the cultural disparities of the Kenyan population in order to determine how the different ethnic communities handle and respond to colour, images and text written in the Kiswahili and English languages. Lack of this kind of emphasis somewhat weakened this day, the researcher believes.

If posters produced by, for example, the Ministry of Health could be tested in many different parts of the country simultaneously, this would probably reveal something about culturally inspired visual perception.

Very precise symbolic values attached to colours or images by the various communities and social sub-groups should be regularly evaluated to enable the Kenyan graphic designer develop them and test them in specific target groups.

It is the contention of this researcher, that studies of this kind may be more effective in controlled environments like the classroom and hence have greater potential for scientific analyses. The increasing dependence on printed media that relies on graphic design certainly justifies the need for regular research.

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OBSERVATION

5. Which colors can you see within the print?

Print (a)

Print (b)

8.0 APPENDICES

Appendix 9.1

Interview Schedule A No.

Date of Interview: \_\_\_\_\_

KENYATTA UNIVERSITY

Department of Fine Art

A STUDY TO EXAMINE THE RESPONSES OF CONTEMPORARY RURAL AND URBAN KENYANS TO IMAGES IN SELECTED POSTERS.

RESEARCHER'S INTERVIEW QUESTIONNAIRE A

This interview/questionnaire seeks information pertaining to observation and interpretation of the visual material (printed posters) provided by the researcher.

All information here is CONFIDENTIAL. You are therefore requested not to write the subject's name or address. The findings of the study will be useful in understanding to what extent age, sex, level of education and occupation enhance or hinder interpretation of two dimensional visual material presented in poster form.

Please respond to the questions as honestly as possible. Your cooperation is indispensable to the success of the study.

MALE FEMALE PRINT (a) and (b)

1. Sex

2. What is your age? \_\_\_\_\_ (in years)

3. To what level have you received formal education? \_\_\_\_\_

4. What is your occupation? \_\_\_\_\_

O B S E R V A T I O N

5. Which colors can you see within the print?

Print (a)	Print (b)

6. Which shapes or images can you identify in the print?

Print (a)	Print (b)
-----------	-----------

7. What does the text read?  
(Write YES where Applicable)

CORRECT	INCORRECT		
---------	-----------	--	--

I N T E R P R E T A T I O N

11. Which colours can you see within the print?

8. Combine the text and the image in the print and comment on what you think the poster represents.

Print (a)	Print (b)
-----------	-----------

9. How long did it take the subject to interpret the print?

Print (a)	Print (b)
-----------	-----------

10. Did you notice any interesting reactions from the respondent?

Specify \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. Which does the text read?
- |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
14. Combine the text and the image in the print and comment on what you think the poster represents.

OBSERVATION

11. Which colours can you see within the print?

(c)	(d)	(e)	(f)	(g)	(h)
(i)	(ii)	(iii)			

12. Which shapes or image can you identify in the print?

(i)	(ii)	Print (a)	(iii)	Print (b)	(c)	(d)
	(j)		(k)	(l)		

OBSERVATION

17. Which colours can you see within the print?

Print (j)	Print (k)	(l)

13. What does the text read? CORRET (A) INCORRECT C(b)<sub>I</sub> C(c)<sub>I</sub> C(d)

--	--	--	--	--	--	--	--	--	--

(i) (ii) (ii) (i) (ii) (ii)

INTERPRETATION

14. Combine the text and the image in the print and comment on what you think the poster represents.

(c)	(d)	(e)	(f)	(g)	(h)

15. How long did it take the subject to interpret the print?

(c)	(d)	(e)	(f)	(g)	(h)

16. Did you notice any interesting reactions from the respondent?

Specify \_\_\_\_\_  
\_\_\_\_\_

27. Did you notice any interesting reactions from the respondent? Specify (j) (k) (l)

OBSERVATION

17. Which colours can you see within the print?

Print (j)	Print (k)	(l)

18. Which shapes or images can you identify in the print?

Print (j)	Print (k)	(1)

19. What does the text read?

CORRECT		INCORRECT		C	I	C	I

I N T E R P R E T A T I O N

20. Combine the text and image in the print and comment on what you think the poster represents?

Print (j)	Print (k)	(1)

21. How long did it take the subject to interpret the print?

Print (j)	Print (k)	(1)

22. Did you notice any interesting reactions from the respondent ? Specify \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

23. O B S E R V A T I O N

Which colours can you see within the print?

Specify

Print (m)	(n)	(9)

24. Which shapes or images can you identify in the print?

Print (m)	(n)	(p)

25. What does the text read?

<sup>m</sup> CORRECT INCORRECT		<sup>n</sup> CORRECT INCORRECT		<sup>p</sup> CORRECT INCORRECT	

I N T E R P R E T A T I O N

26. Combine the image and text and comment on what you think the poster represents.

(m)	(n)	(p)

27. How long did it take the subject to interpret the print?

(m)	(n)	(p)

28. Did you notice any interesting reactions from the respondent?

Specify \_\_\_\_\_

QUESTIONNAIRE B

TICK WHERE APPROPRIATE, MORE THAN ONCE IF NECESSARY.

i) Are you dependent on any visual material as a means of communication? Yes No

ii) How often do you look at print media?  
Daily Weekly never

iii) In what form is the media that most rely on?  
Newspaper Poster Book Magazine Any other (state)

iv) Does your kind of work demand of you the reliance on visual media in print form? Yes No

v) Apart from providing information, does a poster, in your opinion, serve any other function?  
If any, which?

Total number of residents

Total number of males above 10 years of age

Total number of females above 10 years of age

Appendix 8.2

QUESTIONNAIRE B

TICK WHERE APPROPRIATE. MORE THAN ONCE WHERE NECESSARY.

i) Are you dependent on any visual material as a means of communication? Yes No

ii) How often do you look at print media?

Daily Weekly never

iii) In what form is the media that most rely on?

Newspaper Poster Book Magazine Any other (state)

iv) Does your kind of work demand of you the reliance on visual media in print form? Yes No

v) Apart from providing information, does a poster, in your opinion, serve any other function?

If any, which?

Appendix 8.3 SELECTION FORMAT

Total number of residents.

Total number of males above 10 years of age.

Total number of females above 10 years of age.

For each resident above 10 years of age, the following information is necessary:

AGE

SEX

EDUCATIONAL LEVEL

- 1.
- 2.
- \*3. selected resident
- 4.
- 5.
- 6.
- 7.

SELECTION OF RESIDENT

Last Digit of the questionnaire	NUMBER OF RESIDENTS OF AGE 10 AND ABOVE							
	1	2	3	4*	5	6	7	8
0	1	2	3	1	2	5	2	8
1	1	1	1	2	3	6	3	1
2	1	2	2	3	4	1	4	2
3	1	1	3	4	5	2	5	3
4	1	2	1	1	1	3	6	4
5	1	1	2	2	2	4	7	5
6	1	2	3	3*	3	5	1	6
7	1	1	1	4	4	6	2	7
8	1	2	2	1	5	1	3	8
9	1	1	3	2	1	2	4	1

Selection of subjects is done by taking the last digit of the questionnaire and corresponding total of residents in the household (see example above).

## Appendix 8.4

Kenya Population Census, 1979 Vol. 1 Central Bureau  
of Statistics Population by Ten Year Age Group and  
Education (Nairobi).

AGE-GROUPS	NO EDUCATION	STD. 1-4	STD. 5-7	F. 1-4	F. 5+	N.S.	TOTAL
*0-9	160572	48976	606	0	0	2378	212568
10-19	11352	28715	66040	45070	3565	1265	156007
20-29	23128	16440	80110	102143	17845	1263	240929
30-39	18404	13571	39910	34471	11306	887	118219
40-49	16094	11218	16488	8909	4749	621	57827
50+	19923	8058	5544	3294	3226	438	40483
NOT STATED	703	86	193	110	49	601	1742

## TOTAL

EDUCATIONAL LEVEL	%AGES	(APPROX. PERCENTAGES OF TOTAL 10 YEARS +)	AGE-GROUP	%AGES
NO EDUCATION	30	NO FORMAL EDUCATION	10 - 19	25
Std. 1-4	15	) 40 PRIMARY EDUCATION	20 - 29	39
Std. 5-7	25		30 - 39	19
F. 1-4	23	) 28 SECONDARY AND POST-SECONDARY EDUCATION	40 - 49	9
F. 5+	5		50+	7
N.S.	2	NOT STATED	N.S.	1

## POPULATION BY SEX AND SUB-LOCATION (1979 POPULATION CENSUS)

ADMINISTRATIVE AREA	MALE	FEMALE	TOTAL	NO. OF HOUSEHOLDS	SQ/kms.	DENSITY
KANGEMI	11540	9541	21081	5950	5	3933

\* THIS ROW NOT RELEVANT TO STUDY.

AGE-GROUPS	NO EDUCATION	STD. 1-4	STD. 5-7	F.1-4	F. 5+	N.S.	TOTAL
* 0-9	274034	88525	345	0	0	3775	366679
10-19	10902	120822	103188	28056	395	1737	265159
20-29	23110	27531	56753	33723	1779	1479	143375
30-39	34041	19746	23473	6899	537	500	85266
40-49	35254	11531	8396	1790	175	324	57469
50+	84781	11307	4591	729	78	602	102088
NOT STATED	1743	420	208	64	1	90	2526
TOTAL	463865	279942	195953	71260	2965	8537	1022522

EDUCATIONAL LEVEL	%AGE	(APPROX. PERCENTAGES OF TOTAL 10 YEARS +)	AGE-GROUP	% AGE
NO EDUCATION	30	NO FORMAL EDUCATION	10-19	40
STD. 1-4	30)	60 PRIMARY EDUCATION	20-29	22
STD. 5-7	30)		30-39	13
F. 1-4	9)		40-49	9
F. 5+	0)	9 SECONDARY AND POST-SECONDARY EDUCATION	50+	16
N.S.	1	NOT STATED	N.S.	0

## POPULATION BY SEX AND SUB-LOCATION (1979 POPULATION CENSUS)

ADMINISTRATIVE AREA	MALE	FEMALE	TOTAL	NO. OF HOUSEHOLDS	SQ.kms.	DENSITY
MUTITU S/LOCATION	2652	2975	5627	1224	20	274

\* THIS ROW NOT RELEVANT TO STUDY.