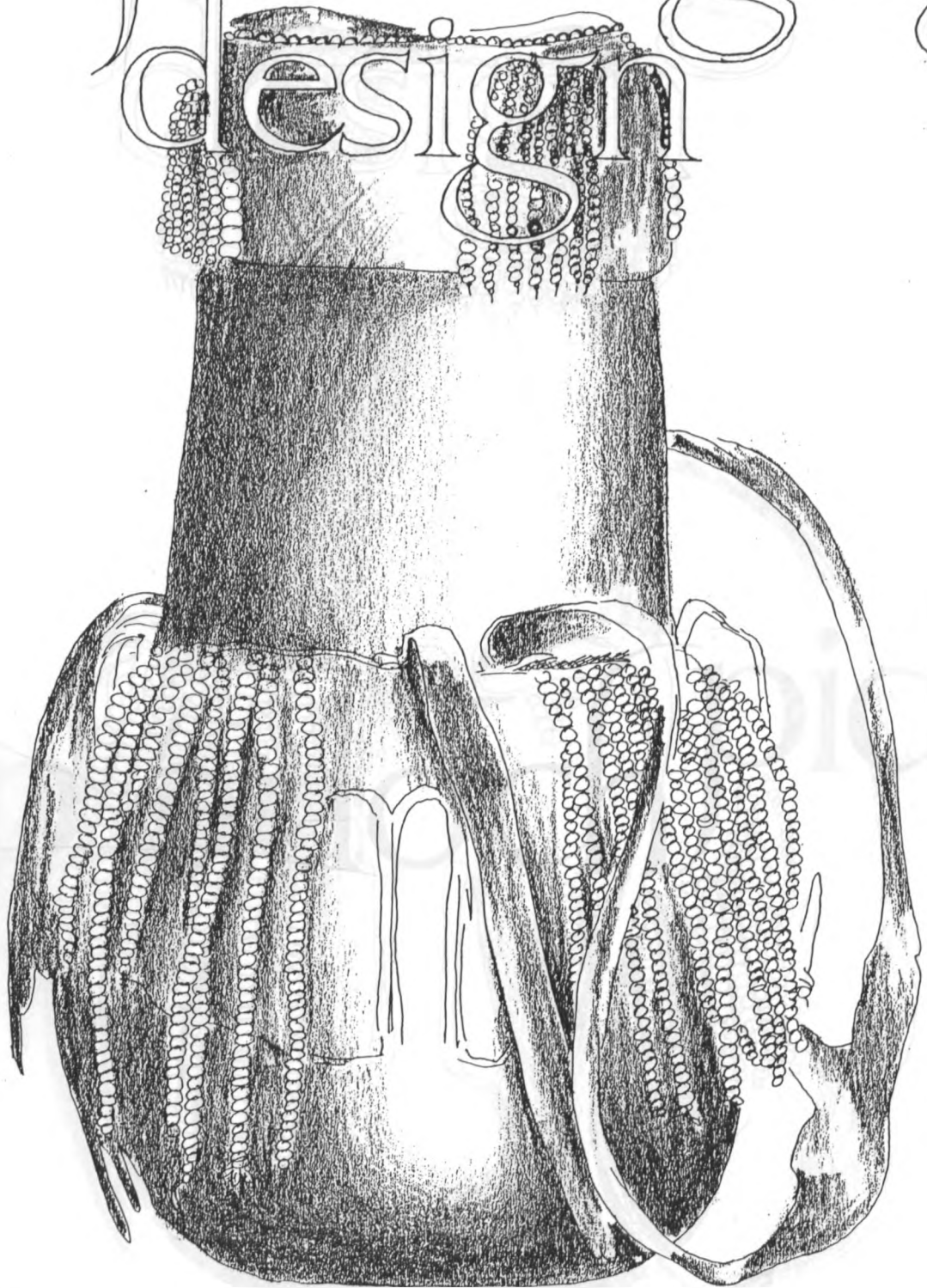


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PACKAGING AND PACKAGING DESIGN
IN KENYA

BY

JOHN PIDO ODOCH
B.A. DESIGN, DIP. IND. DESIGN

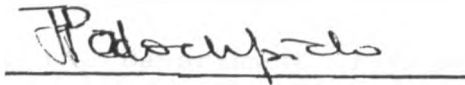
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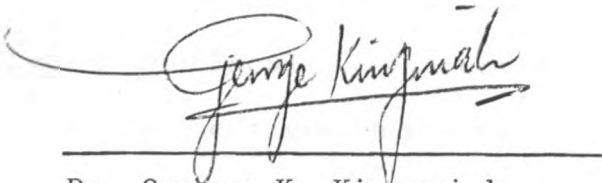
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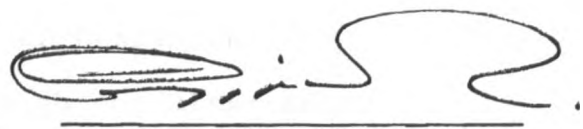
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DECLARATION OF THE SUPERVISORS

This thesis has been submitted for examination with our approval as University Supervisors.



Dr. George K. Kingoriah



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ABSTRACT

This work is an exploratory investigation in the field of Packaging Design. From the outset the two words are separately explained and later combined to form a comprehensive title of the thesis, Packaging and Packaging Design in Kenya. Unlike other similar works, this is a theoretical exploration rather than a practically oriented exposition. Its theoretical outlook is considered to rightly reflect one aspect of approach to Design Education at the University of Nairobi. In this University, Design is treated both as a theoretical and a practical discipline. Otherwise in many of the dominantly professional schools of Design, a Master of Arts or Science in Design is often carried out through projects.

The thesis concerns itself with the how, the when and the why of Packaging and its design. The answers to these questions aim at providing the essentials of packaging and in the end criteria for judging packaging design. The findings are expected to be useful to design educators, students and other persons who may be interested in the field.

It is evident that in Kenya, little academic work has been carried out in the field of Design; that there is even less in the way of critical and

academic studies in Packaging Design; and that there has been hardly any work done, from a design point of view in Kenyan Traditional Design. This thesis tries to fill in the gap and to provide an example of academic work in those areas.

Through efforts in this direction (academic work in Modern and Traditional Design) a platform for discussions, comparisons and contrast between modern and traditional designs may emerge. The same platform may also be used to judge the relevance, suitability or usefulness of modern and traditional packaging design to Kenya. In the absence of earlier studies in traditional design local designers can be excused. One can excuse Kenyan designers from ignoring indigenous design concepts. No doubt, many find it an easier option to spectate on alien design concepts, containers, technology and packaging while these continue to undermine and dominate local art and crafts. This means future designers are left with no choice other than to copy from international design magazines, claiming an international outlook without due consideration to a Kenyan contribution to the internationalism.

Many Kenyans do not know about the usefulness, relevance and significance of packaging to other industries and Kenya as a nation. Yet packaging is an important service industry and manufacturing sector

of the economy. Through this thesis, it is hoped that interested parties can now learn about packaging in general, and in particular the social, political and other contributions of packaging to Kenya.

A number of assumptions were made in this work. That packaging design is a field of design. In this field, functions, products, the environment and the users influence the container methods of production, forms, structures and graphic design. The elements of influence are significant factors and requirements in the design process. After the design process, the factors and requirements are often used as design criteria in evaluating alternative design solutions. While Kenyan modern and traditional packaging designs may be similar in concepts and procedures, the containers are different in materials, forms, function, structures and methods of production. Though traditional and modern packaging co-exist, modern packaging appears to be in the process of replacing traditional packaging. Considering that the majority of Kenyans are rural peasants, where traditional packaging is dominant, traditional containers and their use is still more relevant to the country. In the context of the rural area, modern packaging is at times not practical. Generally all these assumptions were found to be correct.

In addition a number of problems were discovered and discussed. Firstly Kenyan packaging designers experience the constraints of inadequate training. The results of the inadequate training are that the designers are unable to take comprehensive design briefs. The subsequent design proposals therefore do not meet the true problem requirements. This means the suggested solutions may fail to work at one time or another. There is poor design methodology, overcharging or undercharging of clients and copying of designs from magazines and books. Secondly, the professional design industry (including packaging design) is dominated by foreign owned agencies. The alien designers help to underdevelop local talents and philosophy of design. The other problem is that of lack of design awareness among the general public. So, people do not seek design services.

It is recommended therefore that the relevant authorities embark on letting people learn about design. Secondly, the Kenya Government embarks on an intensive training of people in packaging expertise. The trained packaging experts should be charged with the responsibility of designing and developing packages that will work in the true Kenyan context.

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CHAPTER ONE

INTRODUCTION

A Brief Historical Development

Packaging is an activity that started early in the history of man, since man consumed liquids, grain and other foods. These items needed collection, transportation, processing and storage; which are essential steps before, during or after consumption. Man experienced difficulties in carrying out the steps. The difficulties in carrying out the essential steps led to the devising and use of containers. The use of containers, packaging was therefore a means through which man solved his problems of food collection, transportation, processing and storage. In Kenya, like elsewhere in the world, the beginning of packaging can be closely associated to the consumption of liquids, grains and other foods.

Any item that needed collection, transportation, processing and storage called for packaging. Leaves, gourds, calabashes, baskets, horns, skin bags and earthenware vessels were among the container forms that man started to use early in the history of Kenya. Food items such as millet, sorghum, yams, potatoes, and green vegetables were collected from the bush or gardens and transported to homes in baskets. Once at home, millet is dried and stored in grain stores.

Gourds, calabashes or pots were used to collect, transport and store milk and water. Leaves and gourds were used to collect honey. To process and store the collected honey, pots were used. Millet, yams, vegetables, milk and honey, are some of the food items that early Kenyans collected, transported, processed and stored. The use of baskets, gourds, calabashes, leaves, pots and other containers facilitated ease of consuming the food items. Without the use of containers consumption of the foods would have entailed discomfort and significant waste.

As time went on, containers were developed to meet more accurately the specialised needs of nomads, agrarians, hunters, warriors and those of religion. Nomads are often on the move in search of fresh pastures. Their surroundings are often rough, industry and subject to dirt and container damage through breakages. The animal skin bags, commonly used in northern Kenya, were developed to suit the needs of the nomads in that area. The nomads need a container that is light in weight so as to move around easily, tough to take the rough edges of the surroundings, and does not break easily. He may also desire a container which is durable because of lack of time to make artefacts since most of the time is spent on caring for animals and defence. The last need is generated by the presence of dirt and dust in the

environment. The closeable skin bag seems to meet all these nomadic needs. Besides the skin bags, the slim and longitudinal calabash gourds that the nomadic Masai use are yet another example of container development and adaptation to suit a set of needs. In this case the gourds are fitted with lids, decorations and ropes to satisfy health, social and transportation needs respectively, as illustrated in Fig 1.1.

The agrarians are often settled in one area for a longer period of time than the nomads. They are often a larger population which demands the production of larger quantity of food. The nature of the products the agrarians deal in is bulky. The settled life-style led to the development of grain-stores which are stationary and large enough to store food requirements of one season. Food production is often once in the year, corresponding with the one wet or rainy season in the year. The calabash gourds the agrarians use are larger and more spherical than those the nomads use. This is because of the need for bulk transportation of items to feed the larger population. The agrarians, in Western Kenya for example, developed earthenware vessels such as pots and bowls. These containers break easily and take time to make. Agrarians have time to make pots in the dry season when the workload is little. The surroundings of wet ground and green vegetation and ample time for careful handling makes it possible

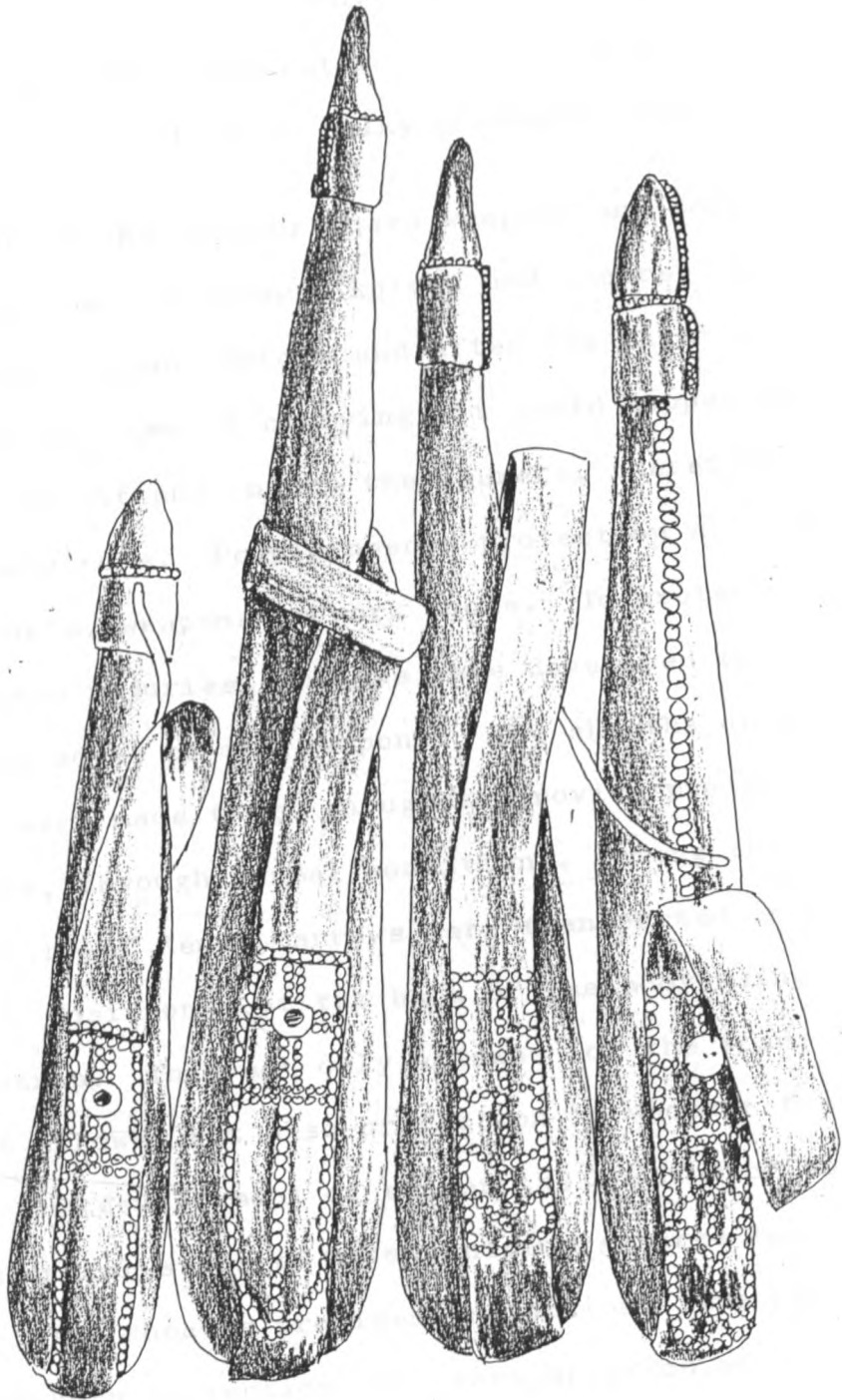


FIG. 1.1 Gourds fitted with Lids, Straps and Decorations.

for the containers made of clay to survive. Collection of food crops is often a rough exercise. The agrarians developed baskets which cater for both rough handling and the transportation of bulky products. (FIG 1.2)

Hunters and warriors used weapons and tools like axes, bow and arrows, knives and spears. People did carry these weapons before and after the fight or hunt. At the time of carrying, it could happen that the weapons cut and injure the bearers, therefore proved dangerous. People needed protection against the products, weapons or work tools. To protect people from injuries, sheaths were developed to cover the sharp edges of the weapons. The sheaths or covers of skin were made tough enough to provide protection to people, through normal conditions. Among the Kamba tribe of Kenya, arrows were transported in quivers, positioned at the back of the body using a sling strap. This not only allowed for the transportation of more arrows; but also protection to whoever transported them. The development of either the sheaths or bags are essential steps to make containers serve specialised needs. The sheaths provided protection. The bags offered both protection and transportation of a greater quantity of a product. Protection and greater quantity are the needs of warriors or hunters, a specialised social group in Kenya. (FIG 1.3 and FIG 3.3)



FIG 1.2 Agrarian Containers: Pots, and Baskets *

*Source: Margaret Trowell, Africa Design, 1960.



FIG 1.3 Arrow bags, provided transportation of a greater product quantity.

Religion is the other specialised activity that influenced the historical development of packaging in Kenya. In the country, Kenya, people needed contact with spiritual powers. Powers in the form of gods, ancestors, and spirits. Through the contact, witch doctors communicated to the supernatural powers by way of prayers and thanks giving. Witch doctors are like priests in christian churches. The contacts were through containers such as horns, calabashes, gourds and sea shells. To make the containers suitable for communication with the spiritual powers, witch doctors decorated the containers with feathers and beads. Such decorations were believed to make the containers effective and suitable in communication with the powers that be. In other words decorations enabled the containers to fulfil a purpose or work more effectively. Here one could again say that packaging was intended and fashioned to serve a specialised need, that of communication. (FIG 1.4)

Kenya is among the many African countries that underwent the process of colonisation early this century, 20th century. The process of colonisation brought about new consumer products and hence a specialised group of people. The specialised group that dealt in the new consumer products were traders, merchants and manufacturers. Because of specialisation



FIG 1.4 Containers used by witchdoctors

*Source - Institute of African Studies University of Nairobi.

in activities, the group made specific demands on packaging. The demands were essentially those of protection, distribution, identification, competition and other market situations. Thus containers were used to protect, distribute and identify consumer products. They were used to make the product compete favourably, for attention and purchase, with similar products present in the same market-place. Manufacturers desired to inform consumers about products and assured them that whatever they bought were consistent in quality and quantity. In the end the special needs of merchants, traders and manufacturers made containers carry features like labels, symbols, signatures and trade marks.

Apart from the already discussed special needs, packaging history in Kenya was also influenced by developments in European packaging technology and materials. Since Europe and especially Great Britain, had greater industrial and trade ties with Kenya, one could say that British technological advancements influenced the historical development of packaging in Kenya.

In Britain there were improvements in container manufacturing methods. So, it was possible to produce containers with more sophisticated shapes and in greater numbers than before. Printing became faster

and more sophisticated. It was then possible to print on more containers and with more complicated decorations. In total, the following were possible to achieve in the British container industry: greater quantity, sophisticated shapes and better and complicated decorations. The British technologies and their products were simply transferred to Kenya. So packaging in Kenya became more common place, cheaper and more beautiful.

Eventually it is possible to say the following about the brief history of packaging in Kenya. One, that packaging started here as a means of solving problems that early Kenyans experienced with food products, namely the problem of food collection, transportation, processing and storage. Two, from that early time on container development was closely associated with specialised social activities. Thus packaging became a means of fulfilling needs of specialised social activities, hunting, war, agriculture, and religion. Three, European colonisation meant imposition of foreign cultures onto Kenya. The then new comers introduced a new social culture and with it the various associated packaging forms. Eventually the factors of new technology, materials and manufactured goods further influenced packaging development in Kenya.

Packaging Today

Historically, packaging is seen to satisfy needs that are closely associated with human activities. As man developed he became involved in a number of activities which were important to him and perhaps took most of his time in the day. Such activities may call for packaging. It therefore meant that packaging had to grow so as to correspond with growth and sophistication in social activities. Such continuous growth has made packaging today broad, sophisticated and an industry of its own. Such a complete industry as to employ a number of professionals and other natural resources.

It seems that packaging as we know it today started at the end of the 19th century. It started then because of the continuing effects of the European Industrial Revolution. The Revolution brought about the idea of doing things in mass. Mass production, transportation and consumption. The wealth of an average person in the community improved, generating greater desire for more amenities. The quotation given below can be used to argue the case that packaging today was born at the end of the 19th century.

By the end of the 19th century the Industrial Revolution had created a high level of productivity and mass transportation means for moving products to the consumer. In the buyers market the consumer began

to demand more for his money. First of all he wanted safety. He did not want to be poisoned by the product due to adulteration and contamination. Secondly he wanted quality. The product had to be well made and its quality protected against deterioration. The demands led to legislation, unit packaging and brand identification and advertising.¹

The industrial revolution produced great advances in container invention and fabrication, resulting in the development of most standard container forms used today. Included were the metal can, collapsible tube, folding carton, corrugated shipping case and crown closure. During the later part of the 19th and early part of the 20th centuries, the ground work was laid for mechanised production of all standard container forms. During the same period, the development of linotype, photoengraving, process-colour printing and additional graphic arts processes completed the combination of container and effective decoration needed to make modern methods of packaging possible.²

The above quotation is useful when we look at ourselves as consumers. We desire quality, safety and not be poisoned by adulterated products. All these are qualities that good packaging tries to give products, today as well as during the Industrial Revolution. This and other similarities between today and that time makes us argue and agree that packaging today might have started during the Industrial Revolution.

The same quotations above also reveal that packaging today has developed to serve the special needs associated with marketing. In the market the consumer is the boss. His wishes and welfare form important packaging considerations. Indeed packaging nowadays is understood primarily in the context of

marketing. Though this paper is not mainly concerned with marketing it touches on some aspects of it. A simple explanation of the word is therefore attempted so as to make the relation between it and packaging clearer. Marketing could be explained as the total activity that aims at making the product sell at a profit. It is planning the overall life, death and burial of a product. At one point or another the exercise of product planning involves packaging. In planning the sale of a product for example, containers get involved at the point of distribution, display, and advertising. The containers to be used could be wrappers, cartons, wooden crates or metal boxes. These are designed and produced for the purpose of distributing, displaying and advertising the products to the consumer in the market. Packaging is therefore basically influenced by marketing. Products which are the core-subjects of marketing influence container forms and appearance in that the containers have to satisfy their needs: description, protection, identification, and end use. Packages also have to apply themselves to product targets like consumer age, income level, social bracket and buying habits. It also has to meet retail considerations such as display, geographical location and competition. Like products, the target consumer and retail conditions are all important elements within marketing. People

who concern themselves with marketing seem to recognise the importance of packaging in this field as seen from the quotation below. They therefore seem to accept that marketing influence packaging or the application of containers in this regard.

Most companies recognise that packaging is important for the purposes of protecting and convenience. The activity has been production-oriented in most firms, however, marketing values have been ignored. But this attitude is changing, and the marketing significance of packaging is being recognised.....The major factor, however, is the importance of packaging as a real competitive force in todays struggle for markets. The widespread use of self-service and automatic vending methods of selling at the point of purchase. It is no simple task for a manufacturer even to get his product placed on display in a retail outlet. Shelf space is at a premium, and retailers are inclined to cater to producers who have used effective packaging. 3

A manufacturer often wishes his product to do well in the market-place: the only way he can realise profit and justify his involvements in the manufacturing business. For a product to do well in the market it must create consumer interest and demand. Through creating greater demand it may sell more or out-do similar products in the same market. The idea that one product tries to out-do the other leads to competition. It is therefore probable that today competition is responsible for the continuous changes in packaging. Containers are designed to attract consumers, and create a distinction between competing products. Packaging today is therefore an

important instrument of success to the manufacturer. The authors of the quotations below apparently agree with the fact that there is competition in the market because of mass production. They further agree that package design, when positively conceived and executed, is an important instrument in winning the competition.

Under these conditions, a consumer who has originally intended to purchase an advertised product may very well be attracted to a competitive package that has caught her eye.⁴

Therefore a product needs all the help it can get to stand out; clarity of colour, design and all the other elements that make for quick communication.⁵

However, in the broad sense of the word, packaging is the use of containers to satisfy various needs. Needs which may arise because and when man gets involved in certain activities. No doubt the atmosphere around some of the activities has changed; though the activities themselves might have remained basically the same, as the example of eating food. Food has remained a primary human concern from long ago while the atmosphere around it has changed in time and place. Feeding as an activity generally means obtaining the foodstuff, processing and presenting it. In food processing such as cooking the fuel has changed from wood to electricity or gas. The change in fuel necessitated changing cooking utensils to fit gas or electricity. Prevailing

feelings around the presentation also brought about a variety of serving bowls, plates and trays. Cooking utensils, dishes and plates are the containers which had to change in shape, structure or appearance primarily because of changes in the atmosphere that prevails during the activities that concern them.

Packaging Design

An attempt to explain broadly the term packaging design was made early in this chapter. In the earlier sections of this chapter, reasons, importance, and a broad description of packaging were realised. At this point the main concern is packaging as a design activity. Packaging design is planning and executing the plan of how, when and why a container should be used. Packaging design is a design activity that concerns itself with the use of containers. Here the word packaging is an adjective used to define and designate the type of design. For the interest of a more detailed explanation, the term packaging design will be broken up and treated as two separate words. The two words will be combined later to produce a more concise and comprehensive definition of packaging design.

Many people have given design various definitions. It seems those who concern themselves with design are

not agreeable on one single definition of the word design. A number of definitions are quoted here below.

A goal-directed problem-solving activity relating product with situation to give satisfaction. The optimum solution to the sum of the true needs to a particular set of circumstances. A creative activity - it concerns bringing into being something new and useful that has not existed before.⁷

Design is not decoration. It is communication.⁸

Design is a plan, a purpose, contrived by man.⁹

Design is a creative activity whose aim is to determine the formal qualities of objects (mass produced by industries). These formal qualities do not only include external features but are relationships which covert a system to coherent unity, both from the point of view of the rproducer and user. Design embraces all aspects of human enviroment which are conditioned by industrial/mass production.¹⁰

While the above defititions or descriptions of design are by no means exhaustive, it suffices to give an insight of what design involves. The analysis of the few quoted definitions indicates that design activity involves: Intent, Problem-solving, Relationship between product and situation, Criteria, Creativity, The best solution, Decision-making, Coverision of resources, Conciousness, Meaning, Order and Action. It is possible to generalise a logical procedure of steps which when taken would perhaps include all if not most of the above said involvements of design.

After the analysis to produce what design involves it is possible to generalise the following procedure of steps:

Location and definition of problems needs desires or functions.

Agreement to act or taking a decision to do something about what was located and defined.

Sensitive and adequate search through all available resources and preparation to solve the problem using the research results.

Creatively generating alternative solutions that may solve the problem, do the work or satisfy the need that was located.

Evaluation or weighing of the generated alternatives and making the best possible choice from the alternatives.

Preparation of the chosen alternative for product testing and mass production.

Evaluation of the product while in use so as to further eliminate conflicts that may exist at the time of use.

So far, other scholars' definition of design is given. All the given definitions are general in that they could apply to any area of design discipline. We have also seen what design involves and a generalised logical procedure of steps of design activity. However this word has not yet offered any definition of design, which may also be general like all the rest. The definition of design therefore could logically and broadly be summarised as: a creative manipulation of available resources to satisfy a defined aesthetic and functional need.

Fundamental to this definition is the assumption that there must be available resources and a problem before design takes place. Available resources include design skills, creativity, information, materials and technology to convert the materials into products. A defined need suggests stated goals or objectives of the design exercise.

As in the case of design, the work packaging has also been defined by a number of scholars in that field. Some of the definitions are quoted here below.

Packaging is the use of containers and components plus decoration and labelling to protect, contain, identify, merchandise and facilitate use of product.¹¹

Dressing products attractively and making them convenient for dealers and customers to handle.¹²

Packaging may be defined as a general group of activities in product planning which involve designing and producing the container or wrapper for a product.¹³

Packaging must protect what it sells and sell what it protects.

The overall concept of a co-ordinated system of preparation of goods for shipment, distribution, storage and marketing at optimum cost compatible with the requirements of the product.¹⁴

A close look at the above different descriptions of packaging reveals that those who described packaging mainly considered the objectives of the activity. Thus, packaging is basically seen from that it hopes to do: contain, protect, facilitate use and convenience, attract, sell or merchandise, transport and store. Packaging is also seen in close association with the product welfare: its protection, good appearance, presentation and sale. It is also seen as a necessary benefit to those who are involved in product manufacture, marketing and use. Eventually, it seems packaging needs the services of design for its attributes and eventual success. Consequently, packaging could be broadly defined as the use of containers for various purposes.

The containers used may be rigid, semi-rigid or flexible. They may also be two-dimensional or three-dimensional and made from a variety of materials.

Such materials as glass, wood, clay, metal, paper or plastics (synthetic materials). There are several purposes of packaging depending on who uses the containers and his needs. However, transportation, processing, storage and collection are some of the packaging purposes that tend to persist from situation to situation. Where packaging concerns a manufactured product, protection and presentation are the key purposes. Whenever a product has conflicts with consumers at the point of use, user protection becomes a central purpose. Packaging may also be employed as a means to social stratification: to reflect status, riches and social class as is evident in the packages of perfumes, wines, brandies, cigarettes and cigars. In the case of social classification, good appearance is of central importance.

Up to this point we have had separate definitions of packaging and design. Now let us look at what happens when the two words are combined. The result is a specific area of design activity: design of containers for the purpose of use or packaging. For a more thorough and comprehensive understanding of the result of combining the two words let us see what other scholars of design have said and perhaps done.

The ultimate design of a package is a choice which represents the distillation of a multitude of lesser decisions, each relating to a specific package or product requirement as defined by management, market, sales, manufacturing or research and development. Each of these groups approaches the subject from a different viewpoint yet makes important contributions to the whole.¹⁵

The required design of packages and the commercial prospects of a packaging industry depend on the patterns of distribution and the growth potentials of trade.¹⁶

Of course the whole history of marketing is the history of packaging enabling products to be introduced in new forms for a wider audiences. And this process continues. As an aid to marketing packaging goes further. It sometimes or always enables one to:

- 1 Distribute products globally
- 2 Ensure product quality whenever it is purchased
- 3 Improve the product itself
- 4 Improve the total product appeal to the consumer
- 5 Distinguish our products from those of competitors
- 6 Improve the conditions in which the products are offered to consumers
- 7 Reduce factory, distribution, warehouse and retailing costs.¹⁷

The early nostrums and elixirs had to have very distinctive impressive packages and wrappings to give them the look of importance; to sell aggressively; and to list all information about use. All this was needed to compete against the many other brands of medicines that, produced in England and shipped to settlers in America in the 18th century, were growing in popularity.¹⁸

From the above quotations one can now say that packaging design is an area of design. First, there are a set of goals that packaging has to achieve.

The goals are distribution, enhancing good appearance and quality, identification, presentation and cost

reduction. Besides, suitability to collection, transportation, processing and storage were among the objectives of packaging as stated earlier.

Two, packaging design entails solving problems. Problems are the basis and only reason for any design activity.

Three, from the set of goals one may make strategies which, when followed, may lead to the solving of the problems that exist. The strategies so made are actually potential answers to problems. In the case of packaging design, the designer tests the strategies by sketching and presenting the sketches to the client for approval, alterations, further development or testing.

Now it is possible to assert that packaging design is one of the design disciplines, because it is a problem solving activity. It involves statement of goals and laying strategies. Its success depends on the presentation, testing and further development of ideas. All these characteristics are the same as those of other design disciplines. Therefore packaging design is a design activity involving these steps:

- 1 Recognition of the problem.....
- 2 Definition of the problem.....
- 3 Preparation by compilation of past experience....
- 4 Analysis of all the preparatory materials.....
- 5 Synthesis of a solution.....
- 6 Evaluation of possible solutions.....19

To relate packaging design to the above quoted steps, it is necessary to take each step one at a time. To recognise a problem in packaging design means realising that there is a need which should be satisfied. For example, a soft drink manufacturer may require bottles to contain, transport and sell the drink. A consumer realises that he has problems in dispensing a product from a pack. Such realisation of a problem may lead to an improvement of the package to facilitate easier removal of the product from the package. All the realisations, whether from the user, designer, manufacturer or marketing unit, are the equivalence of recognition of problems.

Once a problem is recognised then it is defined. Problem definition is often the responsibility of the designer. However, anybody else could also define the problem that exists. The designer defines a problem by stating in simple terms what the container should do. For example, the package should facilitate quick and easy dispensing of the product. Or it should attract customers when it is on display and costs little to produce. In defining a complex problem, when there are several functions the container should perform and accomplish, the designer arranges the functions in order of importance. He may also simply state goals that the designed package is expected to achieve.

To prepare in this case entails collecting all possible information about past related packaging problems. What is important in this exercise is the collection of design methods, solutions and materials that were used in solving similar problems. The reason for preparation therefore is to learn from the past and avoid repeating solutions and mistakes. The analysis of the information gathered may lead to formulation of strategies, in that the designer begins to relate past solutions to the new problem. The analysis of the collected information means dissecting and studying the information to validate it. In other words to find out whether such pieces of information are useful or otherwise not useful in solving the problem at hand.

Synthesis is the generation of solutions which when applied would solve the problem. It is the creative stage of the design process. There may be three or more potential solutions, generated through the process of synthesis. It is hoped that only one of them is the best possible solution to the problem. A choice is therefore necessary. The choice is made through the process of evaluation. To evaluate and choose the best solution can be done by listing the advantages and disadvantages of each solution. The one with the greatest advantages and least disadvantages is often chosen. The chosen alternative is prepared for production and application.

Preparation of a container for production means a number of careful and accurate steps. Take a paper board carton for example. There must be a production drawing of the carton, which is eventually cut from a larger sheet. It also indicates which areas of the carton will be creased for easy fold. The drawing is used to make dies which are eventually used to cut and crease the cartons, process of container manufacture. Preparation for production of the carton also involves preparing text (words) and illustrations to go on the carton.

For the purpose of this thesis packaging design is therefore defined as:

"The manipulation of available resources to satisfy needs through the use of containers". A packaging designer is the one who concerns himself with the manipulation of the available resources to satisfy needs. The packaging designer should have the skill to locate and define packaging problems. He should be able to generate alternative answers to the problem, which of course means that he should be creative. He should also possess the ability to draw, apply colours, manipulate shapes and use brief and concise statements as the means of defining problems and the selected solution. It is essential that the designer knows about packaging materials,

methods of production, legal obligations and cost.

All these are necessary resources, useful in preparation, analysis, synthesis and evaluation. Eventually the designer should always be on the look out, the only way he can easily locate packaging problems.

Objectives and Scope of the Study

This study was primarily concerned with the structural and visual design of containers. The container structural design includes its shape (round, square, triangular, rectangular or other shapes), the feel (rough or smooth) and materials used in making the container. It also involves the featuring and positioning of all the elements that contribute to its ultimate appearance. These are: brand, name, symbol, manufacturer, colour, illustration, shapes, lines and typography.

The study set out to investigate in an exploratory manner whether the assumptions made in this study can apply to Kenyan design.

The study also intended to investigate how and why containers are used. This was to provide design rationales behind packaging design and justify the activity, as socially important. Through investigating the reason for design, the study was also expected to provide some criteria through which one can evaluate

packaging design and judge it as suitable or unsuitable. In other words, the study should generate a set of means or method which can be applied to measure design excellence or poverty.

Little critical design studies have been conducted in the field of Kenyan Traditional Designs. Because of this, there is little scholarly ground for the evaluation of modern designs, using Kenyan traditional design as the scale. If there were adequate studies in Kenya traditional packaging design there might have been a yardstick with which to measure the relevance and hence success of modern designs. The study therefore made a critical appraisal of Kenya traditional, and modern contemporary packaging design, and compared and contrasted the two forms of packaging and design.

The study attempted to find out whether modern and traditional packaging co-exist harmoniously. Or whether there is domination of one over the other. Or if there is any conflict between the two. Reasons for such harmony, domination or conflict between the two forms of packaging were also explored.

The critical study stated above included a general survey of modern packaging activities in Kenya. It was hoped that the general survey yields at least two results. One is that it reveals the problems that

are associated with modern packaging in Kenya. Secondly, the survey reveals the services that packaging provides to Kenya, in both economic and social terms.

The critical study of this thesis also included investigating the influences of functions, products, environments, conditions of use and materials on modern and traditional modes of package production, structures and graphic design. After investigating the said influences it was possible to find a basis for comparison and contrast between modern and traditional packaging and design. In the end, modern and traditional packaging will be evaluated and judged suitable or otherwise.

Presently, very few people in Kenya know about packaging. Few people know about the functional, economic and social significance of packaging. There are also few designers and students who wish to make a career in packaging design. The study hoped to find out why this is so and educate the general public about packaging.

It was expected to provide a body of information that professionals, academicians and students of design may find useful in concept, application and academically provoking.

Assumptions

One can advance the following assumptions about Kenya packaging and the related design activities.

Functions, products, the environment and users influence container methods of production as related to forms, structures and graphic design. The elements of influence are significant factors and requirements in the design process. At the end of the design process the factors and requirements are used as design parameters or criteria in evaluating alternative solutions.

While Kenyan modern and traditional packaging designs may be similar in procedures, the products of design are different. The resulting containers are different in materials, forms, functions, structures and methods of production.

Modern packaging is unnecessarily undercutting and replacing traditional packaging.

Modern packaging design, technology and culture is undermining and replacing an aspect of Kenya traditional art, craft and culture.

Considering that the majority of Kenyans are rural peasants, Kenya traditional packaging is still more relevant to Kenya.

Geographical Location and Method of Study

Nairobi is chosen as one of the areas of study. This is so because it houses most of the country's packaging designers and manufacturers. Nairobi is within easy reach from the researcher; therefore provides adequate opportunities for thorough search. In Nairobi one can find records and earlier similar or relevant investigations in the archives and collection of public libraries and the National Museum. There seems little choice in the end but to consider Nairobi the most appropriate place for the purpose of this study.

Torosei sublocation in Kajiado District, Maasailand, is the rural area chosen for the study of Kenya traditional packaging and design. It is hoped that the Maasai sublocation provides a true example of Kenya traditional setting. In this chosen rural area there appears to be little influence from other Kenya tribes and other peoples from outside of the country. There also seems to be enough variety of traditional packaging forms to advance certain ideas of the thesis.

Much literature has been written about the Maasai by other scholars. Therefore much reference is available in other disciplines such as anthropology, sociology, history and literature. Since other scholars have taken interest in the Maasai, it is hoped

they will find the outcome of this thesis interesting.

The traditional containers were located in Torosei sublocation and where possible studied in situ. However, some were carried to the research base for more detailed analysis. Photography, drawings and written text are the methods applied for recording observations and results. Similar methods are also used in the study of modern packaging design.

Summary

In summary the thesis addresses itself to the problem of packaging. The address entails: A general survey of packaging in Kenya, a critical analysis of packaging problems, an investigation of the economic and social significance of packaging. An investigation of the influences of functions, products, the environment, users and materials, for both modern and traditional modes of packaging, on container methods of production, structures, forms and design. A comparison and contrast between traditional form of packaging with modern examples. An insight into traditional packaging and an attempt to evaluate the two and eventual judgement of which is more or less relevant to the country. If the focus is satisfactory the study will bring out the functional and social influences of packaging in Kenya. It will establish packaging criteria for the evaluation and judgement of container

designs. It should also make it possible to realise packaging design concepts based on traditional form of packaging. The thesis may also attempt to apply the conclusion and concepts to modern designs. The study will also provide a body of knowledge that interested parties may find useful in formulating concepts and in application.

Definition of Important Terms

The following terms are used in the thesis. However, their uses are common among packaging and design scholars. For the purpose of this thesis the terms may be used as defined below.

Packaging: The use of containers for various purposes. The operation of packaging by which articles or commodities are enveloped in wrapping and/or enclosed in containers or otherwise secured.

Design: The creative manipulation of available resources to satisfy aesthetic and functional needs.

Packaging Design: The creative manipulation of available resources to satisfy aesthetic and functional needs through the use of containers.

Pack: To put a product into a container for storage or transportation. It may also mean one unit of a product, uniformly processed, wrapped or sealed

in a sheath or container. Or it may define a quantity of items boxed or wrapped for storage or shipment. To package is to make a package.

Container: In general, any receptacle or enclosure used in packaging and shipping. Recently, this term has taken on a special meaning designating relatively large (1 cubic meter or above), reusable enclosures to be filled with smaller packages for consolidated shipment, handling and storage. That which encloses or that in which goods are enclosed for transport.

Package: Parcel or bundle of things put together. Box in which things are packed.

Interior Packaging: Protective packaging of items within a package using shock-absorbing materials and dividers.

Flexible Packaging: Packaging involving the use of such flexible materials as foils, films, paper and others to form the package. They depend on the product for their shapes.

Rigid Packaging: Packaging involving the use of rigid materials such as, plastics, glass, metal, wood and clay. They retain their shapes through normal conditions.

Semi-Rigid Packaging: Packaging involving the use of materials such as paper boards and corrugated boards. They stand between flexible and rigid packagings.

Industrial Packaging: A loose term referring to one aspect of packaging in which goods are packaged for industrial buyers in contrast to consumer buyers. However, it often also includes packaging of durable consumer goods like stoves, radios, air conditioners and refrigerators.

Consumer Package: The package that ultimately reaches the consumer, the unit of ultimate sale. The container that by reason of construction and design cannot be used for shipping safely without further packaging (related terms are retail package and primary package).

Structural Design: Refers to the technical features of the package, such as choice of materials, dimensions, measurements and construction.

Visual Design: Refers to the promotional features of the package, such as printing and decoration, layout, colour, shape and illustrations.

FOOTNOTES

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CHAPTER TWO

ESSENTIALS OF PACKAGING DESIGN

Product Function

Chapter one attempts a general survey of modern packaging in Kenya. The survey also includes a short development of packaging in Kenya. It reveals the usefulness and importance of packaging industry in the Kenya economy and national development efforts. The chapter also speaks about the problems of packaging in Kenya. Possible solutions to the problems of modern packaging are suggested.

In this chapter we are going to see: The description of use and function. The relationship between use and function. Function and use as critical design determinants.

It appears that the function of a product is: What it has to do or it was intended to do. The product purpose or reason for existence. The justification of a product as a solution to the original problem. Why is product A an answer or solution to problem B? Because problem B posed a number of questions or needs to be satisfied. Product A now answers the questions problem B posed. Therefore product A is a solution to problem B because it satisfies the set of needs expressed in problem B. Other scholars have the following to say about the definition of function.

Functional requirements consist generally of the following:

- 1 Primary function
- 2 Secondary functions
- 3 Operation
- 4 Maintenance

The first two items (1) and (2) are concerned with what the product has to do. Item (3) is concerned with how it does and item (4) with servicing and repair during its useful life.¹

The next consideration is in the area of function and use. The product must do what it is expected to do.²

The designer must deliberately create new products and processes which will fulfil mankind's needs.³

From the above three quotations it is possible to say that function is the main intention of designing and producing a product. Function is what a product is supposed to do and does. It is the fulfilment of mankind's needs; in other words the answer to our needs. It answers the 'why' of a product and therefore explains the existence of a product. There may be many aspects of function but they all amount to one thing, the product must work. It is in this respect that we can say that a product is functional. Once a product fails to do what it is supposed to do we say it is not functional. A non-functional product stops at the design and test stages. It does not continue to the production stage. In that case it is not allowed to be born and perhaps exist.

Product Use

"Use" is concerned with the way the product is applied or consumed. It connotes the particular manner of product application to solve the original problem that prompted its manufacture. It is the relationship between product and man and the overall society. Use deals with harmony between product and man in the process of consumption. Harmony implies the removal of any possible conflict between the product and its consumer.

While "use" may seem to be less primary to a product than "function", it nevertheless affects people's interest and effective demand for the product. Consumers generally prefer products that are easy, comfortable and pleasant to use. Any product which offers those advantages during use sell more and make greater profit.

The moment one starts to consider man, there is no choice but consider the circumstances in which the product is used by man. The conditions and situations of product application. The quotation below summarises the concept of "use".

This is really the end to which design is directed,..... Briefly we have to consider: Who is going to use the designed product. Where it is to be used, How it is to be used. What it is to be used for⁴

The Relationship Between Function, Use and Design

One wonders what differences and/or similarities exist between function and use. Whether or not the two are of any significance in the design process. Some of the answers to the questions are contained in the quotations below.

In designing for function the designer is thinking of the product in mainly technical terms, as a device for performing certain function. In designing for use the designer is thinking about the operation for the device by a person.....The first and most fruitful questions to ask, even about the most ancient product, is: 'What is this product expected to do?' The answer is obvious. The cooker must cook.....What do you do with an easy chair? You sit in it at ease, relaxed.⁵

The suitability of a product for its intended use depends on the quality of its functional efficiency with which it carried out its functions as a machine. To be suitable in all respects we must consider the user or operator in the design of the products.⁶

The design of printed materials is obviously affected by the social, industrial, political and religious influences of a given time. There is perhaps a 'main stream' style of designing print and a number of tributaries which are influenced by a particular group in society or by a particular functional need.⁷

It is possible to stipulate some general 'rules' about aesthetic appearance.....

Appearance should reflect function and in no way detract from efficiency.

Appearance should not add unnecessarily to cost unless it is a prime requirement.

Appearance should reflect the quality of the product.

Appearance should be designed in relation to the environment in which the product is used.

Appearance of functional products should grow from their structure.

Effective and economical use of materials usually leads to good appearance.⁸

To summarise the operation of designing for function we can say that the following have to be observed:

- 1 Interpret the design requirements as accurately as possible.
- 2 Convert the requirements into engineering functions.
- 3 Find the best means to suit the function in all respects.
- 4 Always design for the highest efficiency, and wherever possible, for simplicity and reliability.⁹

The relationship between function and use is that both are certainly important design considerations. It is in this respect that both function and use affect the design process and hence the net result of design. Form, appearance and structure are all design efforts that are affected by the two factors of design, function and use. Appearance, for example, should reflect function and intrinsic quality of the product. The structure and subsequent form of a product is arranged according to the particular function of the product.

Use also influences the net result of design and appearance in particular. Appearance of a product is designed according to: environment and time. According to social, industrial, religious and political influences. According to the user of the product and several other interests that may be associated with man.

However, there are some differences between use and function. Function is often closely associated

with the technical aspects of the product. That the product mechanically works, economy of materials, efficiency of performance and such like aspects of the product. Use, however, has to do with the human aspects of the product. Likes and dislikes, human-product operational attributes, appearance and the generally more emotional respects of the product.

Functional and Use Influences on Packaging Design

The end point of packaging design is a product, which is a package or container. We saw, in chapter one that packaging design is an area of design. Earlier in this chapter we also saw that functions and use influence the design of a product. If packaging design entails a design process, and the end of that process is a product (container), then function and use influence packaging design. Through the same manner of deduction we can say that function and use influence the structure and appearance of a container.

The success of any packaging design therefore depends on considering function and use as significant design determinants. For a designer to succeed he should:

- 1 Consider who is going to use the container, where and how it is to be used and what it is to be used for.

2 The designer must deliberately create new packages that will fulfil mankind's needs.

3 Appearance of the package should:

Reflect function and quality of the content.

Promote efficiency of its function

Not add unnecessarily to cost

Mean economical use of packaging materials

4 Observe the following steps when designing the package:

Interpret package function and use accurately

Translate them into solutions or design proposals

Find the best means to suit function and use in all respects.

5 Always design for the highest efficiency, and wherever possible for simplicity and reliability.

Now let us attempt a closer examination of packaging functions and uses; how the two affect packaging design and the net result of the design process. Quotations 10 and 11 below may assist our efforts to closely examine the effect of use and function on packaging design.

Packaging is the use of containers and components plus decoration or labeling to protect, contain, identify, merchandise and facilitate use of the product.....

Containers go back to the dawn of history. Any item to be stored or transported called for packaging.....

Actually there are more than 100 different jobs that packages can perform in 10 or more distinct categories. Successful packages can be a major source for:

- 1 Reducing unit cost
- 2 Promoting distributor and retailer acceptance
- 3 Increasing turnover and sales - at a profit
- 4 Extending shelf-live and reducing waste
- 5 Extending marketing areas and penetrating new markets
- 6 Introducing new products or products adapted to new forms and uses
- 7 Helping consumer make better and more frequent use of the product
- 8 Promoting company, its products and its image
- 9 Meeting Government compliance problems and manufacturer's responsibility for safety and regard to the consumer's health, welfare and essential interests.
- 10 Planned growth of the product lines and profitability.¹⁰

Who invented the earliest forms are not known, but it is rather obvious they were created to make transportation easier.....

It was desirable that the package prevent spillage and contamination.¹¹

Using the above quotations, 10 and 11, we can now list some of the packaging functions and uses.

They are:

- 1 Protection
- 2 Containing
- 3 Identification
- 4 Storage

- 5 Transportation
- 6 Cost and waste reduction
- 7 Promotion of distributor and retailer acceptance
- 8 Increasing turnover, sales and profit
- 9 Introduction of product into the market
- 10 Promotion company and product image

However, it may be necessary to emphasize that packaging today is primary to marketing. Nowadays, whenever the word packaging is used it is easily understood in the context of marketing. This is the case because commercial activities dominate our daily lives and hence packaging for that purpose. Commercial packaging could be defined as the use of containers for marketing manufactured, processed goods or consumer goods. To understand more fully the packaging functions and uses in the context of marketing it may be necessary to trace briefly how packaging became adapted to this area of activities. Europe, where the concepts of packaging as a specialised activities might have started, is taken to illustrate the point.

At a certain time in the European history the shopkeeper simply measured flour and handed it over to whoever wanted to buy it. Here containers were involved in the exercise. In the first place the shopkeeper needed containers to store and measure the flour as desired. The consumer also needed containers to take

home the flour he purchased. An aspect of marketing was also involved in this exercise. That of purchase in that a good was exchanged for money.

As time went on it became necessary to use brown paper bags. The required amount of flour was placed in the brown paper bag long before the time for sale. The premeasured amount is sold, in the bags, to customers. At this point of development the brown paper bag can be seen as the beginning of commercial packaging.

The bag was a convenience to the customer in that he needed not carry his own container to and from the shop. The paper bag was also a convenience to the shopkeeper in that he could cope with more customers in a given time than before. The paper materials, from which the bag was made, was strong enough for handling during the measurement at the shop and transportation by the customer. The paper bag was to be good enough as to be used for storing the flour. The bag had to facilitate filling with and emptying of the product. Eventually the bag had to allow for closure, when it was first filled at the shop, and reclosure when the consumer did not exhaust the flour during the first consumption. Closure and reclosure are necessary steps to protect the initial amount of flour or leftovers during use. These were needs the paper bag had to satisfy: convenience, saving time, protection,

filling and disposal, handling and facilitation of sales in general.

Function and use made the paper bag acquire the following properties:

- 1 Possession of a cavity, to make it contain.
- 2 A wide mouth, to facilitate easy filling and disposal.
- 3 Pre-fabrication, to allow pre-filling so as save the shop-keeper's time during sales.
- 4 The use of paper material, to reduce cost and generate a structure that can be folded to effect easy and fast closure or reclosure and opening.
- 5 Being suitable to handling since the paper material withstood the actions during filling and transportation.
- 6 Storage, transportation and protection.

As time went on in Europe, people began to manufacture other powdery products. An item like plaster of Paris is too close to wheat flour, in terms of colour and texture. Consumers began to confuse one for the other particularly when the two were packed in similar brown paper bags and placed in the same store at home or shop. There was therefore need to distinguish plaster of Paris from wheat flour, in other words one product from another. To differentiate

one product from the other the shopkeepers and consumers wrote the name of the product on the bag in which that product was placed.

Such a practice, of writing product names on the container, is the beginning of product identification. Again, one can ask, 'What is the purpose?' Obviously the answer is identification. Identification brings about assurance of what is contained and in the end avoids confusion. The writing soon become a part of the container surface design consideration, refer to quotation below.

Take the purchase of flour, for example. From out of the barrel the shopkeeper would put up the flour in brown paper bag.....

Still, it was pretty important to write the word 'flour' on the bag because its texture and general appearance was the same as plaster of paris, baking powder or talc.....

In addition to dispensing this stable, the shopkeeper had probably passed on his attributes to the purchaser, 'Mr Green said it was the best. He knew'.....

Early packaging pioneers and smaller, less known manufacturers sensed that they could make packages that would induce people to handle the merchandise, and in so doing they would not need the support of heavy advertising.....

The package had to replace the one-time reassuring sales clerk.....¹²

The population increased which led to the increase in the number of people who went shopping.

Food-crop production, including wheat, had to increase to cater for the increasing population. Both increase, in shoppers and wheat flour, made it difficult for shopkeepers to cope with the situation. Shop assistants were then employed as a reaction to the increases. The shop owners could not employ too many assistants however; since that might have meant eating too much into their profits. In the face of these difficulties solutions were found.

The assistants were used to measure out and pack the wheat flour in units that were in greater demand by customers. This generated a situation of one assistant behind packaging and one in front at the shop counter selling.

It also necessitated putting weights and shopkeeper's name on the paper bags to assure the consumers about the product they bought and where to complain whenever the need arose.

At this time, it seems identification was then more than a matter of product name. It also meant stating the product quantity and retailer. The purpose of identification was more than simply solving the problem of confusion. It also became a legal obligation.

At this point of European history packaging was further influenced by the consumer. He determined the

size of the product he wishes to purchase at a time. Therefore the size of its container and the need for someone to prepack the products as a means of satisfying increase in the number of shopper.

The use of shop assistants continued until the time of the modern supermarkets. Supermarkets originated as a means of solving the problem of greater increase in population and hence consumers. The arrival of the supermarkets changed buying habits in that a customer now has direct contact with the product. He can pick up the product from the shelf where it is displayed or arranged. He needed not ask the shop attendant anymore, see quotation below.

The package as salesman - that is the new role. It is the connecting link between the company and consumer - the sales clincher. After all your research, promotion and distribution, the product arrives on a shelf. The final step, from shelf to shopping basket, depends on the package.¹³

The supermarket made a number of things go super. It generated a super-increase in the variety and number of consumer goods that are present under one roof. The number of people who went shopping under that roof also greatly increased. The net result is perhaps a jungle of goods and customers. In this jungle packaging had to speak out loud and clear so as to be heard. They had to stand out prominently in order to be seen and perhaps be chosen from the many elements within the mess. This in total

generated a design phenomenon that can be described as packaging for the supermarket environment. In this phenomenon the package had to sell the product. It had to introduce and offer the product for sale more vigorously than before. The package had to sell product more actively because the shopkeepers, manufacturers and shop attendants were now disappearing in the background and allowing the products to compete on their own. Anyway, the supermarket which is really a market-place influenced packaging design. The results were the use of loud colours, intricate graphic and structural forms and outstanding brand name. The package had now to protect the product from both the environment and shoppers.

The above brief historical packaging development in Europe illustrated the origin of commercial packaging. In itself commercial packaging served a simpler need of the overall marketing complex. Marketing is much more than simply selling and buying, an area which commercial packaging served. The concept of marketing therefore made packaging design address itself to a more sophisticated set of problems. The results were in the end more complicated than those of commercial packaging. Marketing goals have the consumer at heart. This consumer is often also the buyer and user at the same time. The real or imagined consumer needs, desires and interests dominate in planning means and

ways of selling the product. The consumer happens to be dynamic so always changing his needs, desires and interests everytime. If packaging design will generate results to meet his dynamic characteristic then it has to consider changing its goals and results at the same rate. No doubt a product cannot be viewed in isolation. It must be viewed together with other products in an environment where there is tense competition. Before going into further details let us at this point agree that packaging and market have something in common. There is a close and intricate relationship between marketing and packaging. This is true primarily because the two concern products and their lifecycles. The quotation below illustrates such a relationship as well as influence.

Marketing is a relatively modern invention and it has become intricately involved with the packaging function.....

In designing a package, the designers must aim for several goals in his final design. These are:

- 1 Attract the buyer
- 2 Communicate the message to the buyer
- 3 Create a desire for the product, and
- 4 Sell the product.¹⁴

After the quotation we might have gained insight into some of the relationships between marketing and packaging and the influences of marketing on the related design considerations and results. Now let us

view in greater details the influences of marketing on packaging procedures, starting with the market place. In the market place the product is seen in the light of its attributes. Its qualities or generally what makes it sell. The dominant attributes of the product are compared with those of other products in the same market.

To illustrate the point let us take similar products A and B. Assume that A and B are competing products and that A has greater attributes than B. A would be expected to sell more than B because people who go to buy are primarily concerned with a product's special features that other competing products do not have. In the given example A is said to have out-done B in the competition.

Where the brands are similar there may be no real and fundamental difference. There is a game which is played with and around the brand name and advertising. The brand names are used in the competition to win consumer attention and hence sale. This game with brand name is played through packaging. The packages are designed to prominently, colourfully and beautifully display brand names.

It is believed that a brand name can out-shine another when it is more prominently, colourfully and beautifully designed. In other words the consumer may

see it first and like it more. The net effect is that it will be bought before another. So, one wonders whether the market place influence packaging design. Yes, and in this way: There are always many products in the market place. The nature of the market place therefore generates competition. Competition is a design requirement and to satisfy it packages must have prominent, colourful and beautiful graphic design. (FIG 2.1)

In the same market place there are also many types of customers. Professionals like designers, artists, architects, engineers, doctors and may be accountants. Even if the customers were not professionals there could be differences between them in the light of age group as children, adolescence and adults. Or sex, as male or female. Or income groups as low income, middle income and high income. The customers can therefore be categorised into groups. The groups often form what may be termed product targets.

The product is meant to be consumed by the particular groups in the society. Since a product may be aimed at a particular group, packaging for the product is also aimed at that same group. An illustration of an electric or mechanical tool may be placed on the pack to draw the attention of those specialists who use the tool. The pack of a toy at times shows pictures of children playing with the toy, meaning the

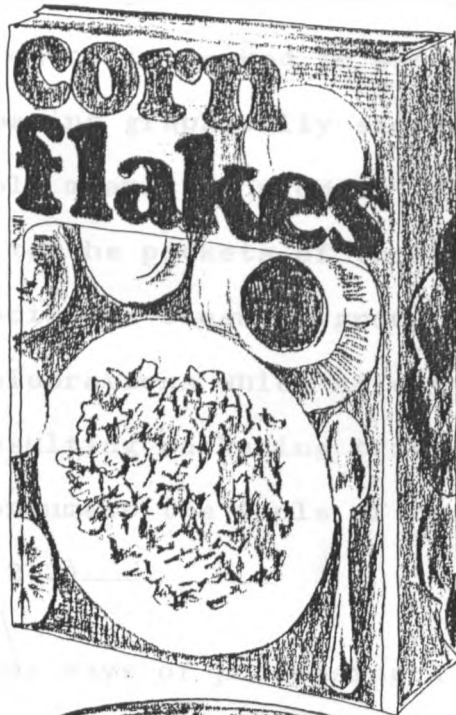


FIG 2.1 Outstanding Brand Names and Decorations are results of Competition.*

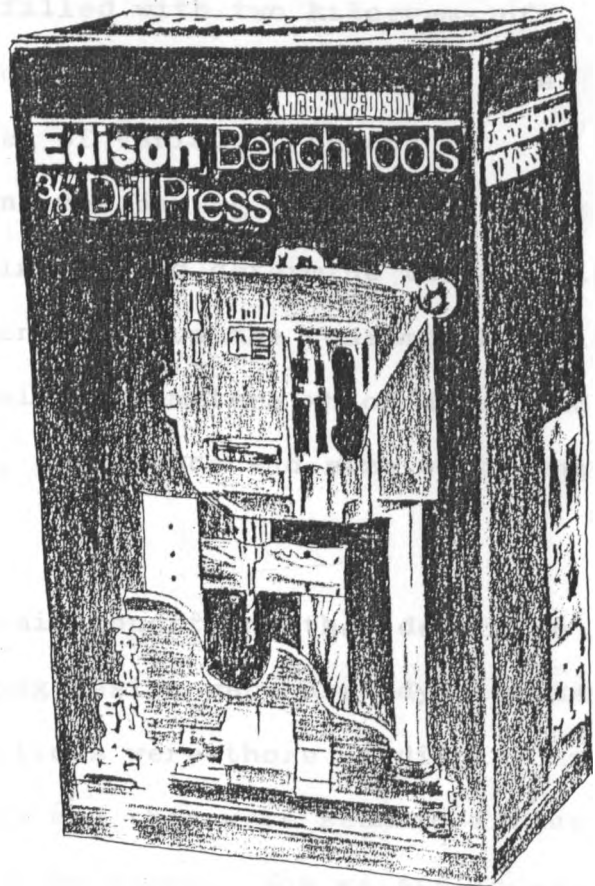
*Source: Walter Herdeg, Graphis - Packaging (1977)

product is intended for children. Packages for male underpants often carry photographs of men wearing the product. A low income product is packed in packages that are colourful and bearing graphically simple illustrations. This simply means the product is cheap to buy and fitting to the pockets of those who belong to that group. Social or consumer groupings are therefore design considerations which affect packaging design. The resulting packaging tries to present to specialised consumers the tools of their trade or belonging. (FIG 2.2)

To date there are many ways of purchasing a product from the market place. The most common ones are self-service and over the counter. Self-service is when the consumer picks for himself what he wishes to buy from the store or supermarket, he serves himself. Over the counter is when the customer is served by a shop assistant, there being a buying counter between the two. On either occasions, the consumer is presented with the product. Whatever the case, the consumer buying habits affect packaging design.

Take self-service and supermarket for example. There are so many products displayed in the same place. The consumer is likely to be confused in this maze of products. In other words there is a problem of selection in the supermarket. Design addresses itself to this problem of how best to assist the consumer in

A: For a Sportsman



B. For an Artisan

FIG 2.2 Packaging for Specialised Consumers*

*Source: Walter Herdeg, Graphis - Packaging, 1977.

identifying and selecting a product he wishes to buy. The goal of design is to produce packages that draw maximum attention when displayed alone, in a group, at eye-level, above or below eye level and when the light is poor in the place of display.

In Kenya maize meal flour is sold in paper bags. The bags are filled with two kilograms of maize flour. The two-kilogram unit of flour like many other unit sales of various products is determined by the consumer buying habits. The units sale of the product in the end determine the capacity or size of the container. Thus the consumer behaviour, buying habit, are design parameters which determine the graphic elements, appearance and size of packages. (FIG 2.3)

Some of the retail conditions that determine the course of packaging design were already discussed earlier. These conditions were those of display and consumer buying habits and they were seen to influence the designs of various packages. Now we are focusing attention on retail factors which were not yet mentioned. One is that the retailer is interested in a speedy turnover. And two, he does not wish to employ so many assistants to show customers where the various products are displayed. Employing too many sale assistants means sharing out his profits and he may not get as much profit as he wishes. Packages must assist speedy

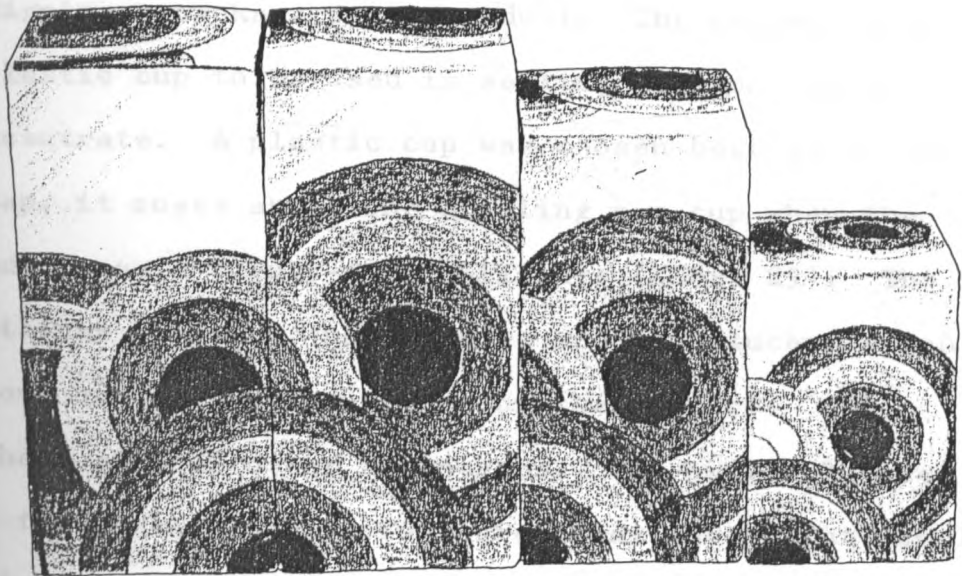


FIG 2.3 Packaging for Self-Selection*

*Source: Walter Herdeg, Graphis - Packaging (1977).

turnover through speaking or communicating with the consumers. The products, through packages, should try to reach out for consumers. They have to say, 'Here I am'. The need leads to designing of packages that are distinctively loud and unique, similar to the state of affairs discussed under competition. When a package affectively communicates with the customers, it is expected it does not need sales assistance. A retailer may not wish to stock a product which does not have effectively designed package. To illustrate the determination of the retailer let us use the case history below.

This investigator currently in the process of designing a package for a product. The container is a plastic cup to be used in selling passion juice concentrate. A plastic cup was chosen because it is cheap, it costs about one shilling per cup when the product costs twenty-five shillings (KShs. 25). The container is light, not fragile and translucent which allows one to see the colour of the product. And perhaps several other advantages. The original brief for the package design indicated that the client simply wanted a label to show the manufacturer (Tri-Square), his address and the product common name (passion juice concentrate). There is no outstanding or selling name and the juice was expected to sell from door to door.

The label was designed and printed in gold-yellow direct onto the plastic cup. The manufacturer then went ahead to distribute the product using the container. When he arrived at one of the supermarkets in Nairobi - Uchumi Supermarket - he confronted a problem. The supermarket refused to stock his product because the brand and common names were not conspicuous enough to effect sales. The investigator is now in the process of redesigning the container to suit retail conditions. Anyway, the point is that a retailer can determine the design of a container as seen from this design experience. (FIG 2.4)

Another important consideration, from the point of view of a retail store is product display. Display is an arrangement of goods in a manner that facilitate the advertising of those particular goods. Effective advertising means the consumer is expected to see the goods in favourable lights and should wish to have them. Conditions of display in a retail store are: position at eye-level, below or above eye-level. At the position of eye-level, the product is most effectively seen from the sides. This implies the concentration and amplification of important information on the side panels of the package. At the position below eye-level the container is seen best from the top. In this case important information is placed at the top panel of the container. The position of above eye-level often



A.: Initial Design



B: Second Design, outstanding brand name added.

FIG. 2.4 Package Design for Tri-Square Product.

is the most disadvantageous position of display. At this position important pieces of information should be placed at the bottom panel of the container. However, some regulations prohibit placement of any information at the bottom of the container. The point is that the position of display in a retail store determine where, on the container panels, important information is placed.

The other retail condition which influences design goals is lighting condition. Lighting is either artificial or natural. When both artificial and natural lighting is poor there is need to compromise the poor lighting with marketing requirements. The compromise is that the packages bear bright colours so they may still be easily recognisable in such poor lighting. Good natural lighting is ideal for display though it is not usual that there is good natural lighting. Coloured artificial lights generate problems during display in that the coloured lights may conflict with the original colour of the packages. For example when the artificial light is blue and the pack is red, the resulting colour of the pack in this case is black. Such conflict may not be desirable, however. Design has so far not addressed itself to this problem which prevail particularly in window displays. Those concerned with window displays are the ones who are often obliged to use the colours of the packages as constants.

At the retail store, sometimes people prefer to inspect products before purchase. This is true particularly in the case of meat sold in supermarkets. The need to inspect meat prior to purchase leads to its being packed in transparent plastic bags. Or in opaque plastic trays covered on one side with similar transparent sheets. Transparency facilitates viewing of the meat before purchase, and that is equivalent to inspection before buying. Here the consumer's wish to inspect the product before purchase is satisfied while the meat is at the same time protected adequately from direct contact with the consumer and hence contamination. Further more, plastic bags allow for easy freezing. Freezing is an essential exercise when the meat does not sell on a particular day or the consumer wishes to store the same.

For toys consumers often wish not only to inspect the product, but may even want to test it. Testing a product is a necessary step to verify it in a working state. In the process of trying the toy one should expect rough handling of both the product and package. This is particularly so when children are involved in the trial exercise. The design solution to rough handling is often a wooden or metal box. Or a sturdy plastic box which does not break easily. Whether the result is a transparent plastic bag or a wooden box one can say this: The retail store is a place where

certain activities or conditions are essential marketing procedures. Packaging has been used to make the procedures possible, easy or even convenient to consumers. The retail conditions or activities therefore influence packaging and design.

Earlier in the chapter, function and use were defined in general terms. In the same general terms, the relationship between function and use were located. In locating the relationships between the two it was possible to see the similarities and differences that exist. In the end it became obvious and agreeable that the two are important factors of design. Design, in the final analysis, conclusively determines container attributes. In other words containers depend entirely on design for their intrinsic as well as external qualities. Through the analysis of the historical development, marketing influence and the works of other scholars in packaging theory, it was also possible to identify packaging functions and uses. However, the intention at this point is to illustrate, in greater details, how function and use influence packaging design.

Before examining such influences let us detail or briefly expand the meaning and description of container function and use. First of all the container must hold the content, product, in its cavity. The

container must contain the product. It protects the product against the agents of the environment. Such agents of the environment are temperature extremes, cold, heat, dry weather, light and gas.

A product also needs protection against organisms like bacteria, mould, insects and rodents. The container may also protect the product against factors that may cause soilage, leakage, sifting, staining and breakage. Eventually a product may need protection against man in the case of rough handling and carelessness. Conditions of use that a container may apply itself to are those of transportation, processing, storage and may be others. During use the concern is the user's welfare: comfort, safety, convenience and confidence. Let us now get into the details.

Of all the package functions, "to contain the product" is often considered to be a basic function. The fact that the package must contain influences design basically. The end result of the design efforts must be that which is able to contain the product. In other words there must be a chamber or cavity in which the product is placed. The result is a vessel. Indeed the fact that an implement is able to contain something leads us to say it is a container. The word container is derived from the function: to contain. Without the successful completion of this function there is no vessel or container. It is rather obvious at this point

to say that to contain is a package function which is responsible for the existence of containers. To this basic function, design ought to address itself basically and the result had better be true.

Once the product is inside the container, it needs protection. It needs to be protected from getting contaminated with organisms and physical dirt. It may also need to be protected from degenerating to useless through light, sun, temperature extremes and other weather agents. Eventually products may need protection against man who may cause breakage and other losses through rough and careless handling. Product protection is done through the use of containers. For instance, photographic paper is protected through a package system which consists of a metal foil wrapper and carton. Both the wrapper and carton are coloured black on the inner sides. The container protects the photographic paper from light. Without protection the paper would degenerate to uselessness. The characteristic smell of tea or coffee is stopped from escaping through sealed paper or plastic bags. Loosing the characteristic smell of those products would render them less desirable. One can find many examples where packages protect products. Protection is therefore a function that packaging design considers and equips the package in question with adequate features to effect protection.

When a package fails to protect a product from one of the environmental agents, and the product degenerates, the owner of the product may be prosecuted. Inadequate protection is therefore illegal as can be seen in the quotation below.

UNGA FINED FOR DIRTY FLOUR SALE

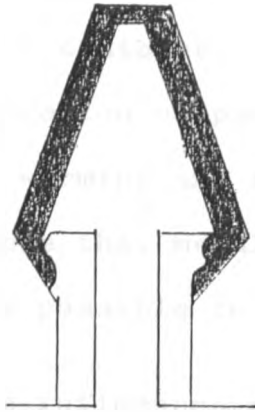
Unga Limited, one of the major manufacturers of wheat flour, has been fined Shs. 8,000 by Thika resident magistrate's court for selling contaminated flour to a Thika baker. The court also ordered a consignment of 400 bags of flour to be destroyed by the health department of Thika municipal council in the presence of the police officer commanding Thika Station.¹⁵

When one analyses the newspaper report it is clear that failure to adequately protect the product may lead to public, civic and legal concern. In the case of the quotation the state of the sisal bag and paper lining were poor and lead to the package failing to execute its rightful duties. The sisal bag failed to protect the wheat flour against various environmental agents which prevailed during storage and transit. The product therefore got infested with organisms and other foreign bodies. The presence of maggots in the flour could not be ruled out. Unga Limited lost money, flour and good-will. All these because of packaging which did not work, it did not protect the product.

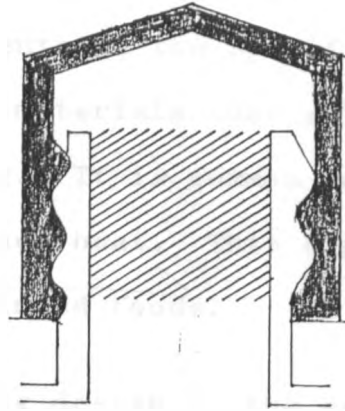
What are some of the container physical evidences that are attributed to protection? Now that the need

to protect products has been illustrated, let us try to briefly answer the above question. The choice of materials from which say cartons are made would be an initial answer to the question. Often cartons are made from corrugated paper boards. The boards are springlike and act as shock absorbers to protect the content from any impact that might cause breakage. When several fragile products are packed in the same paperboard box partitions are used. The partitions discourage the products from rubbing against each other and perhaps breaking. Delicate electrical or mechanical equipment may be protected from damage through the plastic foams. The foam is essentially a cushion against vibrations. All forms of container closures are made to protect the product or left over portions from spillage and deterioration. (FIG 2.5)

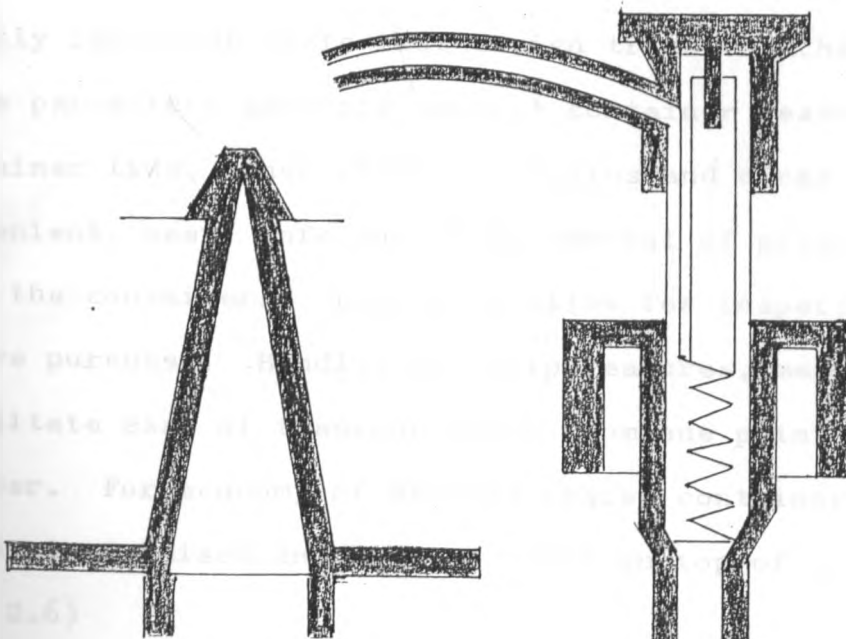
Sometimes it is necessary to process a manufactured food product before it is ready for consumption. Processing may include boiling, sterilisation and freezing, as is the case of milk from Kenya Co-operative Creameries. At times the milk is boiled in the tetrapack before it is ready to be used in hot beverages. Other tinned food products may also be warmed or boiled in the same way before they are used, for instance the preparation of a food product such as jelly is freezing before use. This has



Push Pull



Twist



Snip Top

Pump

FIG 2.5 Forms of container closures

to be carried inside a container. As is the case of protection the design process considers food processing inside the container. This entails the specification and preparation of packaging materials that allow for boiling, warming and freezing. It is common knowledge for example that metals conduct heat. This explains why it is possible to warm tinned foods.

Use influences packaging design in the sense that containers are planned to be suitable for use. Conditions, place, time and person of use are consequently important goals that design tries to achieve. These parameters generate special container features. Container lids, other closures, mouths and necks ensure convenient, easy, safe and clean removal of products from the containers. Lids also allow for inspection before purchase. Handles and grip features, meant to facilitate ease of transportation from one point to another. For economy of storage space, containers are often standardised and made to stack on top of another. (FIG 2.6)

In summary, function and use are some of the factors that influence design. Function and use may be related to people at ordinary, marketing and other professional levels. Whatever the level may be, function and use are important design considerations or determinants. At times the two are justifications for container existence. Both function and use are



FIG 2.6 Standardised containers*

*Source: Walter Herdeg, Graphis - Packaging (1977)

often a major part of the evaluation criteria used to judge a package design good or otherwise bad. Because the two are significant to packaging design, they influence container shapes, structures and graphic appearance. (Appendix 1)

The final evaluation of a package may in the end involve: protection, retailer convenience, consumer acceptance, producibility, safety, distributability, reliability, nondeception and over-all rating.

FOOTNOTES

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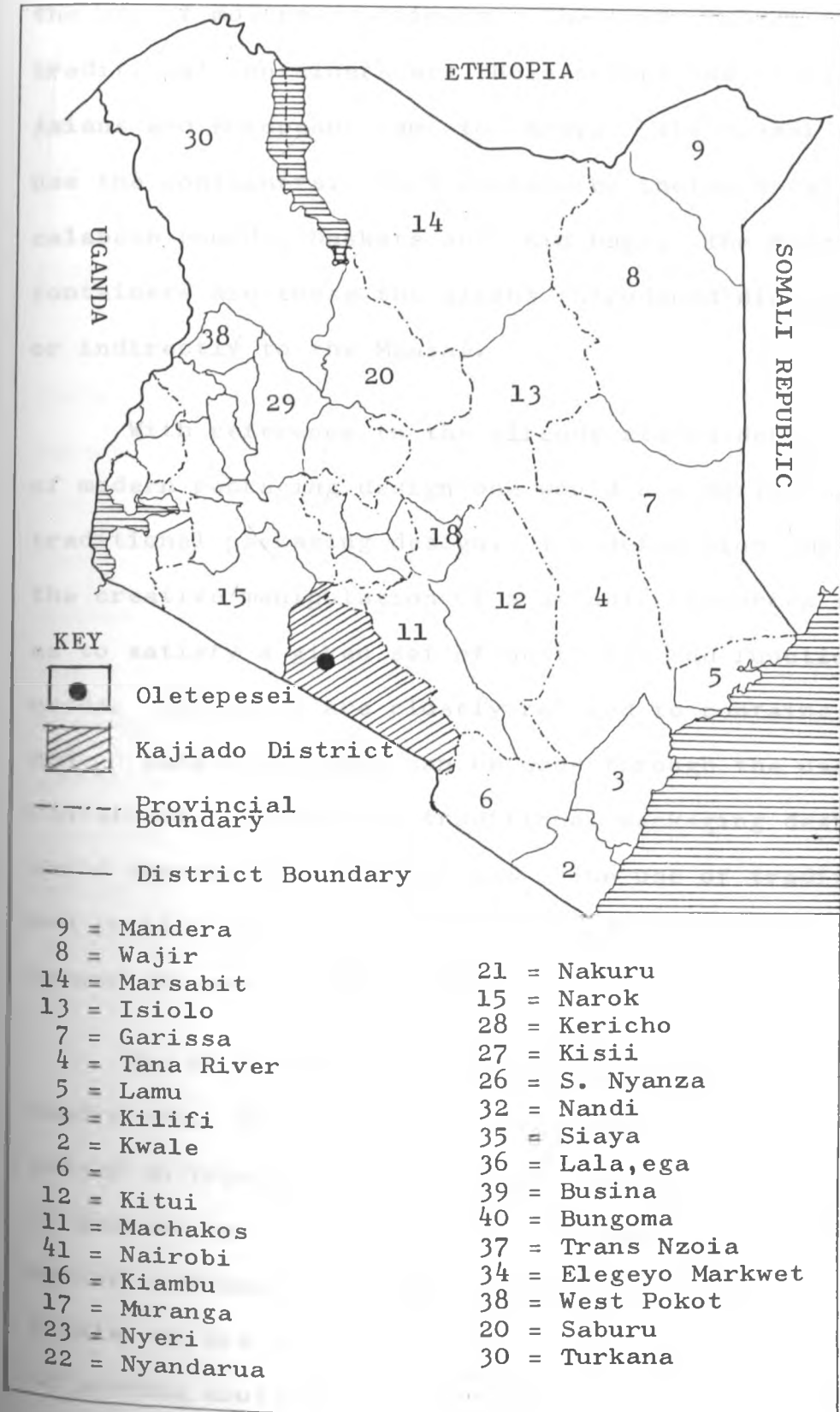
CHAPTER THREE

KENYA TRADITIONAL PACKAGING AND PACKAGING DESIGN

Here the Maasai tribe is a case study. The Maasai traditional packaging and their design therefore form core examples. However, examples from other Kenya tribes will also be mentioned. The case study presents only one example of the many and various tribal and traditional forms of packaging together with the associated designs. The Maasai was chosen as an area for the study primarily because it is expected that few changes have occurred in this place. Changes that may be the result of cultural influences from other tribes in Kenya and beyond. One would perhaps expect to find more authentic examples of traditional packaging than otherwise. Besides, the Maasai are adjacent to Nairobi which provides the advantages of distance for the researcher. Much literature is written about the Maasai therefore one may find interesting comparisons between this work and those of other scholars. The exact geographical unit in which the study was carried out is Oletepesei Location, Kajiado District and Rift Valley Province, Kenya. (FIG 3.1)

Among the Maasai as in most parts of Kenya and indeed throughout the rest of Africa, packaging can be identified as traditional or modern. The traditional

FIG. 3.1 Geographical Location of Oletepesei



form of packaging relates to the use of traditional containers, while modern packaging involves the use of modern containers. The truly Maasai traditional containers are those before the Arabs, Asians and Europeans came to Kenya. The Maasai still use the containers. Such containers included calabash, calabash gourds, baskets and skin bags. The modern containers are those the aliens introduced directly or indirectly to the Maasai.

With reference to the already stated definition of modern packaging design one would now define Maasai traditional packaging design. The definition implies the creative manipulation of available resources so as to satisfy a given set of aesthetic and functional needs. The needs are closely related to containers and satisfying them can be done through the use of containers. The Maasai traditional packaging design could therefore be defined as: "The use of traditional and locally available resources to satisfy needs that demand the use of containers.

One of the resources available to the Maasai is handicraft. Handicraft is a production skill which is passed on from the elders to the youth, from generation to generation, and done so through many years. The master craftsman, normally an elder, teaches the younger people who are then his students the handicraft skill to produce containers. The other available resources

are packaging materials and time. The packaging materials are: beads, calabash fruits, natural fibre, wire, skin and basic tools. The result of the manipulation are of course containers: gourds, calabashes, skin bags, baskets and others. The application of the containers amount to traditional packaging.

Packaging For Product Needs

In Oletepesei containers are used to satisfy variety of needs. First the needs of products, hereafter referred to as product needs. In this case products are items of direct human consumption or use. They are milk (fresh or sour), ghee, water, tobacco, alcohol, arrows, knives as well as tea, maize flour, sugar and rice. Some of the products found in this area are modern in nature. Whatever the case, the products have characteristic smell, taste, colour and physical form. It is essential that the food products are protected to be consistent in characteristics, quantity and perhaps other dimensions. This protection is offered by packaging. Without adequate protection the characteristic quality of say milk is lost. Milk may lose its desired characteristics because of deterioration, spillage and soilage. Dust and a number of insects prevail in the Maasai environment. These agents of the environment, when allowed to act freely, are capable of making the product degenerate to useless.

Flies, cockroaches and other insects which also feed on milk and ghee are disease carriers. The insects carry bacteria and deposit the same on food products where they are feeding. The bacteria, so deposited, find themselves a suitable multiplication ground in the food. When people eat such foods they often get infected. Here the agents of the environment have not only caused the food to deteriorate but have also made the food become harmful to man. In addition, insects often die inside the food making the same considerably lose its consumption value.

The Maasai often pitch their manyatta and live around loose soil surface. The loose soil is likely to be the result to domestic animals activities that are housed every night in the manyatta. The animals roam continuously, killing grass and hence exposing a loose soil surface. The domestic animal dung when dry is simply additional source of dust. After fire, ash is left behind forming yet another source of dust. The floor of the huts do not receive any special building construction treatment; like making the floor hard. With people walking in and out of or within the hut, dust is again the result.

All in all, these typical surroundings of food products are potential and actual sources of dust, Combine dust, greasy foods, milk and ghee and the result

is dirt. Eventually the atmosphere around food is dusty and a great opportunity for ill-health.

Water is lacking in this part. Therefore its use for the purpose of cleaning is greatly reduced and irregular. This factor compounds the situation further and could lead one to state a number of opinions about the Maasai food environment and hence the magnitude of performance to which packaging must be committed.

In the first place one is easily tempted to say that the Maasai habitat and environment in its traditional form has several sources of dust, dirt and eventually health hazards. Given free opportunity the sources can turn food items into uselessness and health risks. One wonders how the Maasai manage in these circumstances. There may be several answers to the question. However, packaging is likely to be one of them which underscores the significance of traditional packaging in this context.

Secondly, Maasai products also need protection against careless handling, or accidents that may lead to soilage and spillage. Mishandling is common with children who are not experienced. Among adults, mishandling is frequently considered accidents. However, the point is that handling has been improper so we shall persist with the term mishandling. Once some of the

products such as milk or tobacco spill, recovery is entirely discouraged because of the dominantly loose surface surface.

It is plausible that products need protection against their environment and bad handling. It is also important that protection is successfully carried out, to preserve vital product characteristics. The Maasai traditional packaging seems to ensure this. It successfully protects the products against the said agents of the environment and human. At this point one may wonder if protection is really an important and deliberate consideration in Maasai packaging. Assuming that it is not, there would be no evidences on the containers to ascertain protection. But, there are evidences on some of the containers which could only come to existence for the reason of protection.

During the research loss of milk, the most common and abundant food, was very little. Perhaps one could rush to say that this was so because containers protect milk from dust, flies, cockroaches and dirt. If this observation stands all times then protection could be a consideration in Maasai packaging design and fabrication.

Besides, there is physical evidence to further prove the point. The choice of packaging materials and shapes is an example. The material for milk gourds is the natural calabash fruit and their shapes are slim

and long when compared to many other fruits. The calabash fruit once made into a gourd is of dead tissues. Dead plant tissues could discourage the multiplication of germs and bacteria. The length of the gourds discourage easy product spillage and discourage trespassing by insects.

In the storage place, a corner of the hut, the gourds are placed among vertical pieces of wood. Such placement of the containers are done so that their positions are upright, a measure which further discourages spillage.

Finally, container closures are physical evidences which stop the agents of the environment from acting on the product freely. So, protection as a product need is a basic Maasai traditional packaging function. It forms one of the primary objectives or goals in the design and fabrication of container's. The results of the design efforts indicate that a level of the original protection objective is achieved. They also indicate that protection is a vital parameter and evaluation of the resulting products of design. The physical evidence to prove the point of protection are container dimensions, fashioning, lids and other closures. (FIG 3.2)

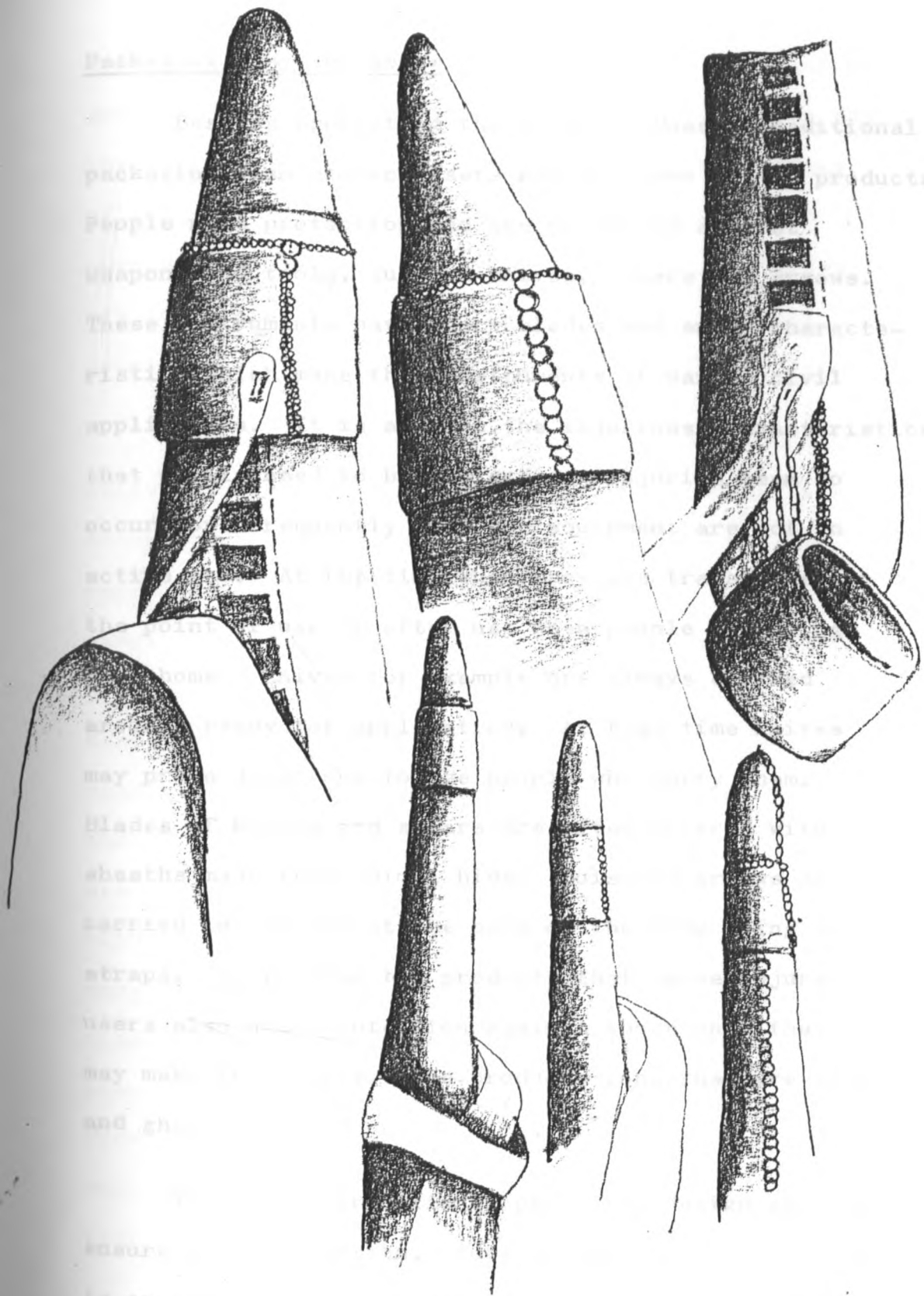


FIG. 3.2 Container Closures are to protect contents.

Packaging For User Needs

Besides protecting the product, Maasai traditional packaging also protect users against some of the products. People need protection and are protected against weapons and tools, such as knives, spears and arrows. These instruments have sharp blades and ends, characteristics which make them instruments of war or civil application. It is against the injurious characteristics that people need to be protected. Injuries seem to occur more frequently when the equipment are not in active use. At the time when they are transported to the point of use or after use when people are going back home. Knives for example are always carried around, ready for application. At that time knives may prove dangerous to the people who carry them. Blades of knives and spears are often covered with sheaths made from animal hide. Poisoned arrows are carried in quivers at the back of the body using skin straps. Apart from the products that cause injuries, users also need protection against those ones that may make them dirty. The products concerned are milk and ghee.

The Maasai traditional packaging design seem to ensure user protection. Subsequently user protection is an important design consideration among the Maasai. Obviously when something is likely to hurt and may be cause loss of lives, it becomes important. The resulting

design should therefore protect people against knives, spears, poisoned arrows and dirt. In other words the intention to protect people against the sharp edges of instruments must be fulfilled. The arrows are carried in tubes (quivers) made of hide. The hides are tough enough for the arrows not to ordinarily penetrate and perhaps injure and poison the bearers.

The tube design is further enforced psychologically by a regular myth and belief, that whenever a woman touches the tube of arrows she would not be capable of giving birth thereafter. The myth is simply an additional deterrent to any possible chance of injuries through the unskilled and careless female handling. It also limits the number of people who handle the dangerous arrows which allows for experienced and skilled handling among the category of those who are entitled to the use of the weapon. As said before, blades of knives and spears are placed in sheaths made of tough hide. This is a measure to reduce the opportunity for the blades to injure people without plan. At the time of application the arrows are drawn from the tube and the sheaths removed from the knives and spears, exposing their dangerous characteristics. (FIG 3.3)

The fats (responsible for dirt through greasing) present in milk and ghee are unable to penetrate the walls of the containers. Here the choice of packaging

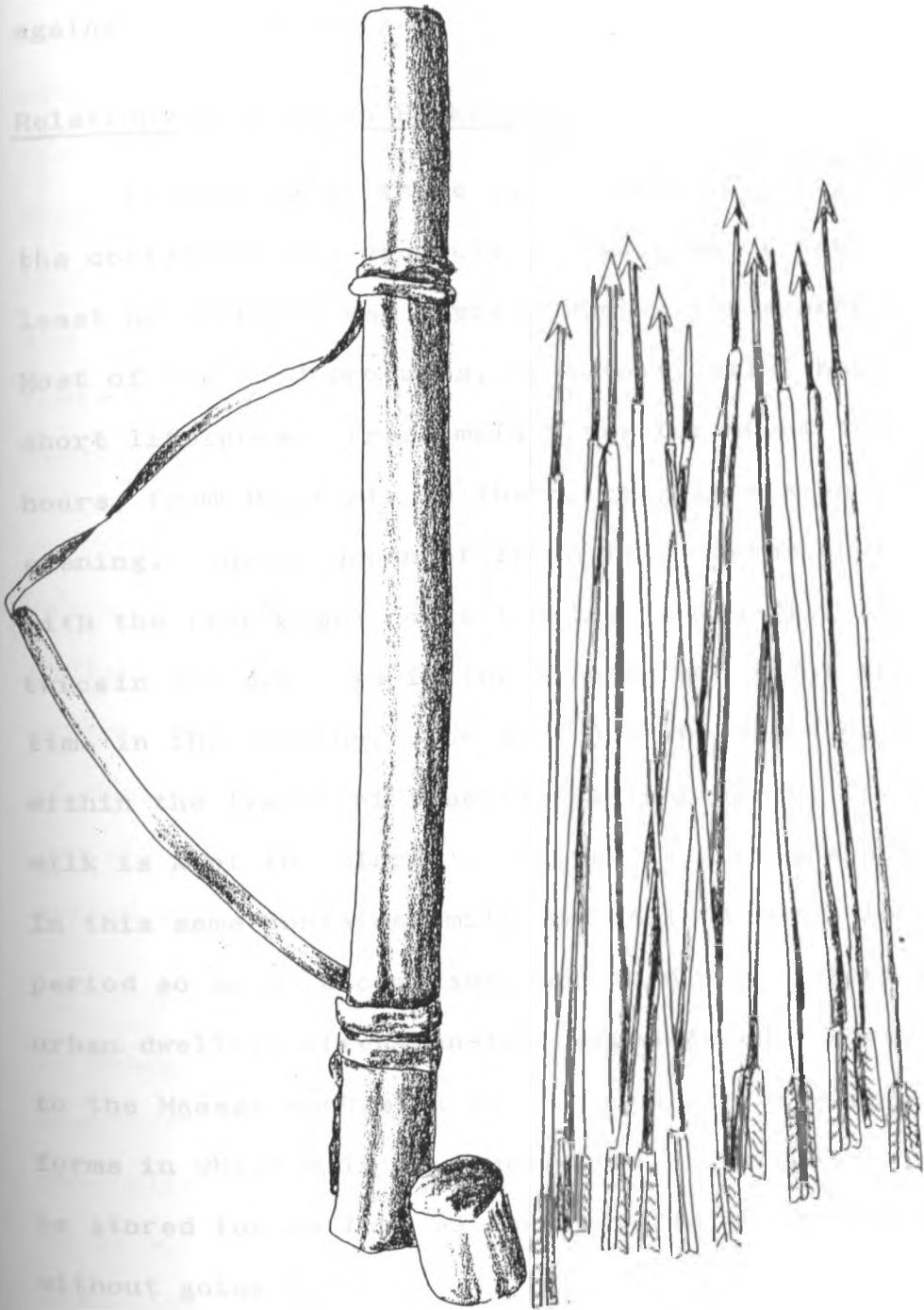


FIG 3.3 An arrow bag, is made for user protection.

materials which is a design process equips the containers to perform their duties, to protect users against getting dirty.

Relationship between Packaging and Use

It also seems there is little conflict between the containers and products at the time of use. At least no conflict was sighted during the search. Most of the food products, especially milk, have very short lifespans. Fresh milk lives for about twelve hours, from about six in the morning to six in the evening. The lifespan of fresh milk corresponds with the time women collect milk. Women milk the cows twice in the day, six in the morning and about the same time in the evening. For safe and wholesome packaging within the limits of traditional technology, fresh milk is kept in 'elepet'. Elepet is a calabash gourd. In this same container milk may be left for a longer period so as to become sour and turn into a form which urban dwellers often consider degenerated. However, to the Maasai such milk is only one of the stages or forms in which milk is a delicacy. Sour milk may be stored for as long as four days in the elepet without going bad.

The gourd therefore has three functions: collecting milk, processing the fresh milk to become sour and as storage. The multipurpose nature of the

container may be mistaken and misunderstood for failure in one instance. It may be misunderstood to fail in keeping milk fresh and hence incompatible with the product during use. Let it be understood that the leaving of milk in elepet to go sour is deliberate. When the milk is to stay fresh the gourd is chemically treated with charcoal. One can locate and use several examples to eventually prove that there is no or little conflict between the traditional containers and products.

The traditional packaging design produces results that reduce conflict between products and containers. It also produces containers that are harmonious with users. So, the other popular goal of Maasai packaging design is harmony between the containers and users. Such a goal is often generally stated as harmony between users and products.

The fact that there is ergonomic consideration in Maasai packaging design is another justification that harmony exists. An ergonomic requirement is generally a human work requirement. When translated to be specific to containers, it is that factor which makes the use of containers possible, easy, efficient and comfortable. Ease, efficiency and comfort are evaluated in human terms and therefore controlled by body and mental dimensions. It pertains to the relationship between container sizes and shapes and

human body size. Let us now try to answer the second part of the question, the way the human factors are satisfied at the time of use.

Milk and water are some of the products that are collected, transported and stored in containers. The period and reason for using containers is collection, storage or transportation. Milking involves squeezing and pulling the cows udder so as to make milk come out in a jet. The jet is directed into the milking gourd. To collect enough milk the squeezing and pulling of the udder is repeated several times. The milk-woman holds the neck of the milking gourd with one hand and at that time she is most likely squatting.

In this position the woman is probably not well balanced. Loss of balance at this time is frequent because the body position is unstable. When the cow moves the milk-woman may also loose balance. Loss of balance, may result in spilling of the collected milk. The cow often kicks because an insect has bitten it or it does not want to be milked. This further complicates the job of milking. To crown the difficulties of milking are the flies, other insects and dust which, when unchecked, makes the work an unhealthy exercise.

Packaging seem to cope with problems that exist during milking. The milking gourd, elepet has a long and gradually narrowing neck. This allows for a wide range of grip to accommodate the various sizes of female hands. The gourd is also fitted with a strap. During milking the strap is tied around the hand. This ensures container and product safety at the time of milking. It makes milking safer. The length of the gourd discourages the flies and dust from gaining entrance into the container and contact with the milk. The gourd is fitted with a lid which is often attached to it. In this position the closure is ready for immediate and efficient shutting of the gourd. The length of the gourd also allows it to be held with most of it away from the cow, such that when the cow kicks very little container damage may be experienced. Let us now briefly recapture the important elepet design features that could be attributed to ergonomic requirements. They are the varying size of the neck, lid, strap and the length of the gourd. All these design features make milking (work) easier, safer, healthier and perhaps more comfortable. (FIG 3.4)

There are two ways in which water is transported from the river, well, resevoir or any other source. At the time of the research, steel drums were the

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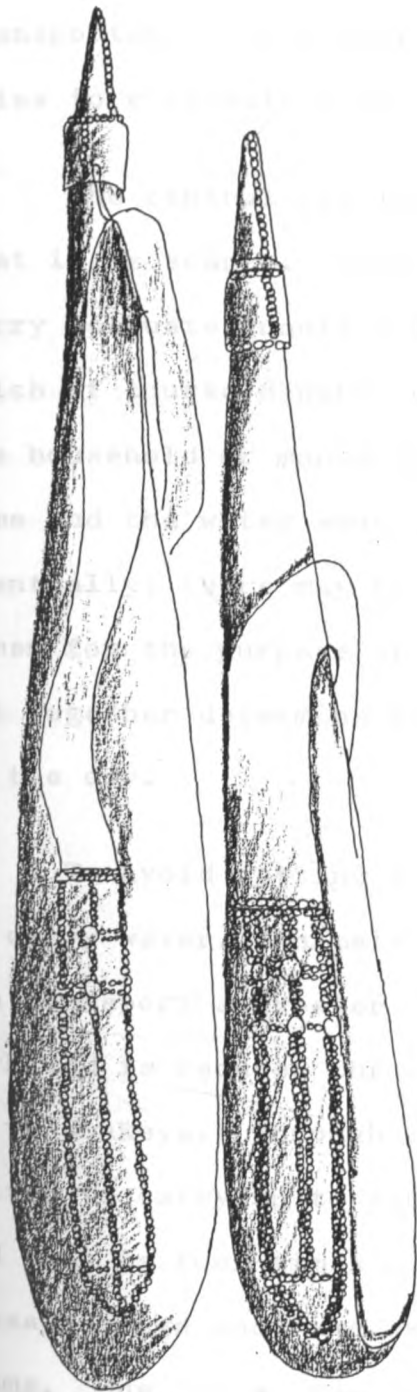


FIG 3.4 Elepet, Calabash Gourds designed for milking.

most commonly used in water transportation. The drums full of water are carried home by young girls and women or donkeys are used. We shall use water transportation as a case example to show how Maasai tries to eliminate conflict during use.

The central problem with water in this area is that it is scarce. Once found, the women try to carry adequate quantity for the day's consumption which of course depends on the number of people in the household or manyatta. The distance between home and the water source is the other consideration. Eventually, there may be little time available to the women for the purpose of carrying water. All these put together determine how tired she gets at the end of the day.

To avoid getting too tired women use donkeys to carry water. Animals are stronger than people so can transport a greater quantity of water. Here human workload is reduced through the transfer of some of it to donkeys. Through design one donkey can be fitted to carry up to four medium-sized steel drums and that is four times a human would manage to do. Maasai design and make skin bags to transport water drums. One donkey may carry up to four drums of water, two on each side of the body. To secure the load onto the animal a fibre or skin strap

is used to affix the bags on the donkey. The strap is tied to go from the back of the animal, below the tail, through the bags and to the front below the neck to hold on the fore legs. Before examining the case of water transportation let us first see briefly the design solutions attributed to ergonomics here.

First the 'olbene', skin bag; allows for an easier way to transport water. It certainly makes it possible to carry a greater quantity of water and reduce time as well as strain. The placement of olbene on the donkey balances weight on the animal. Therefore providing it with some comfort. The area, on the animal, where the drums balance is around the stomach. Here it is softer therefore reducing friction which would have occurred if the load were placed in say where there are bones. The fact that olbene is secured by a strap on the animal provides for security of the transported item. Besides, olbene helps to keep the drums cool, subsequently the water cooler. Loading and off loading the drums from olbene is easy. (FIG 3.5)

Unfortunately, some of the families do not have donkeys. Even then they may need to supplement the amount of water transported by donkeys. Whatever the reason may be women may have to carry water themselves. The women carry water in similar steel drums. In this case a flat rope is devised to provide for

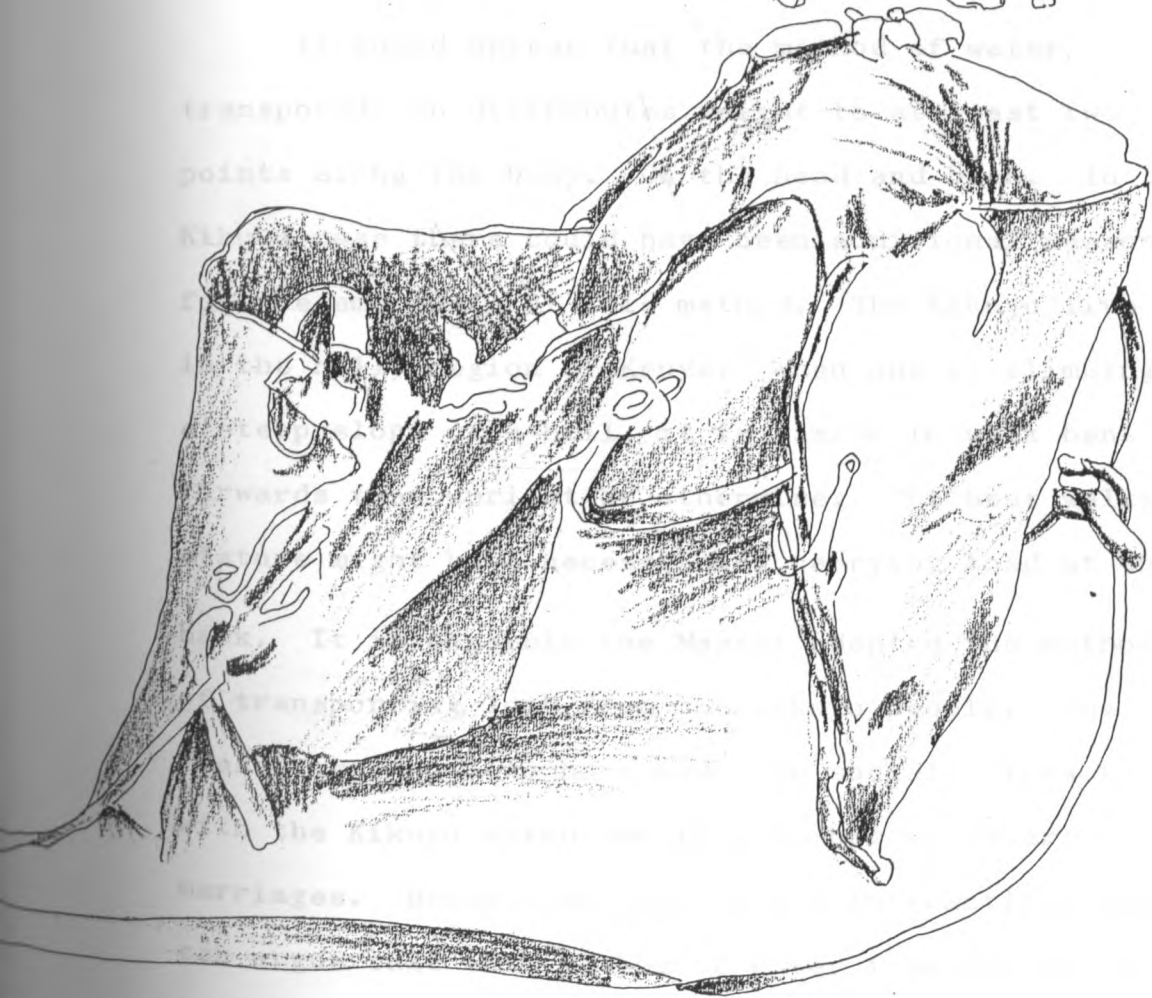
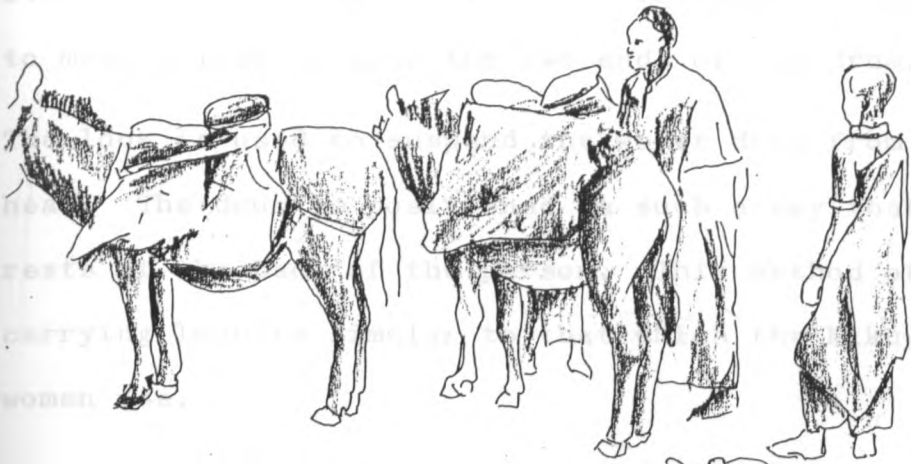


FIG. 3.5 Olbene, is designed for water transportation using donkeys.

carrying. One end of the rope is attached to the other end of the drum. The rope is made long enough to make a loop between the two ends of the drum.

The loop is used to suspend the water drum from the head. The drum is positioned in such a way that it rests at the back of the person. This method of carrying load is similar to that which the Kikuyu women use.

It would appear that the method of water transportation distributes weight to at least two points along the body. On the head and back. In the Kikuyu case there could have been additional reason for the emergence of this method. The Kikuyu live in the hilly region of Kenya. When one is climbing a steep slope of a hill, it is easier to walk bent forwards than upright or otherwise. The bent walking stature might have necessitated carrying load at the back. It is possible the Maasai adapted the method of transporting load from the Kikuyu people. The Maasai are known to have had some social interaction with the Kikuyu which led to a number of inter-marriages. Because of such social interactions one can argue that this method of water transportation might have been copied from the Kikuyu. (FIG 3.6)

Whatever the origin, there may be ergonomic considerations and excellence in this method of water



FIG 3.6 Young girls use steel drums to carry water.

transportation. It seems the method makes it possible for a woman to carry a greater quantity of water than otherwise. This is because the load is distributed over a wider area of the body. She gets less strained. The flat rope makes carrying more comfortable since it does not dig into the head. The cylindrical drum helps in weight distribution through its rolling action. Weight does not rest on one part of the body for a long time which would be uncomfortable. It is however arguable whether this method is more advantageous than carrying load on the shoulder or head. In other parts of Kenya people carry load on the shoulder or head.

The nomadic Maasai use a grand container to put together and transport their belongings whenever they are moving, changing homes. Whenever there is need to look for greener and more pastures, the Maasai pitch new manyatta in the desired location. The same container is sometimes used to partition the hut into rooms. As a container it is called 'ildereta'. But when used as a partition it assumes the name 'esos'. What is of critical design and human factor importance in the ildereta is multipurpose.

One time it is a container at another time a partition. Here the time, energy and materials which would have been used in fabricating two different items

can now be saved. Only one item is made instead of two. Economy of time, energy and materials are important design considerations. Such economies are even more critical among the Maasai where women have to do so much with scarce materials. When the artefact is used as a partition its use life is prolonged since it is kept away from weather agents and insects like white ants. Or kept away from damages that would be caused by children and domestic animals. In the hut it is under close watch and maintenance whenever there is need. The use life of the products is prolonged. (FIG 3.7)

When a woman is on safari she may carry milk in 'esiangau'. Carrying is eminent when the traveller has a baby. The milk is food which the travellers eat when they are on safari, or journey. The same gourd, esiangau is often used as a drinking cup. Thus, whenever children and adults wish to drink, the same is transferred to esiangau. In drinking milk there are a number of problems which ought to be overcome. The esiangau is designed and made as a means of solving these problems. To make the drinking esiangau needs a full-size gourd which is cut shorter, a position around the middle. This makes the esiangau shorter and possessing a wider mouth than the other gourds. However, like all the rest of the milk

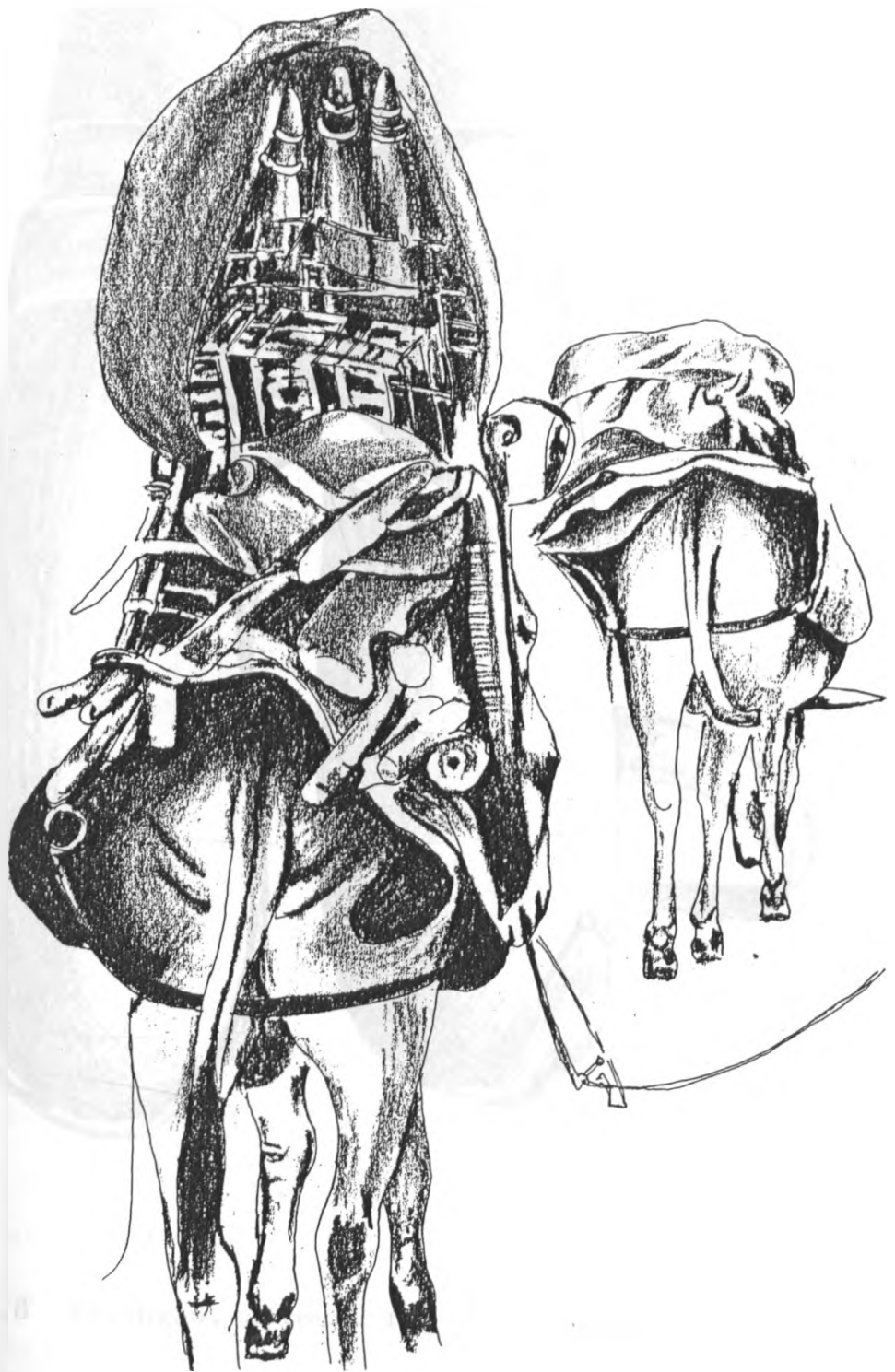


FIG 3.7 Ildereta, a container used to transport* Household utensils when the Maaasai People are changing homes.

*Source: Cynthia Salvadori, Maasai, William Collins & Sons Ltd. (1973).

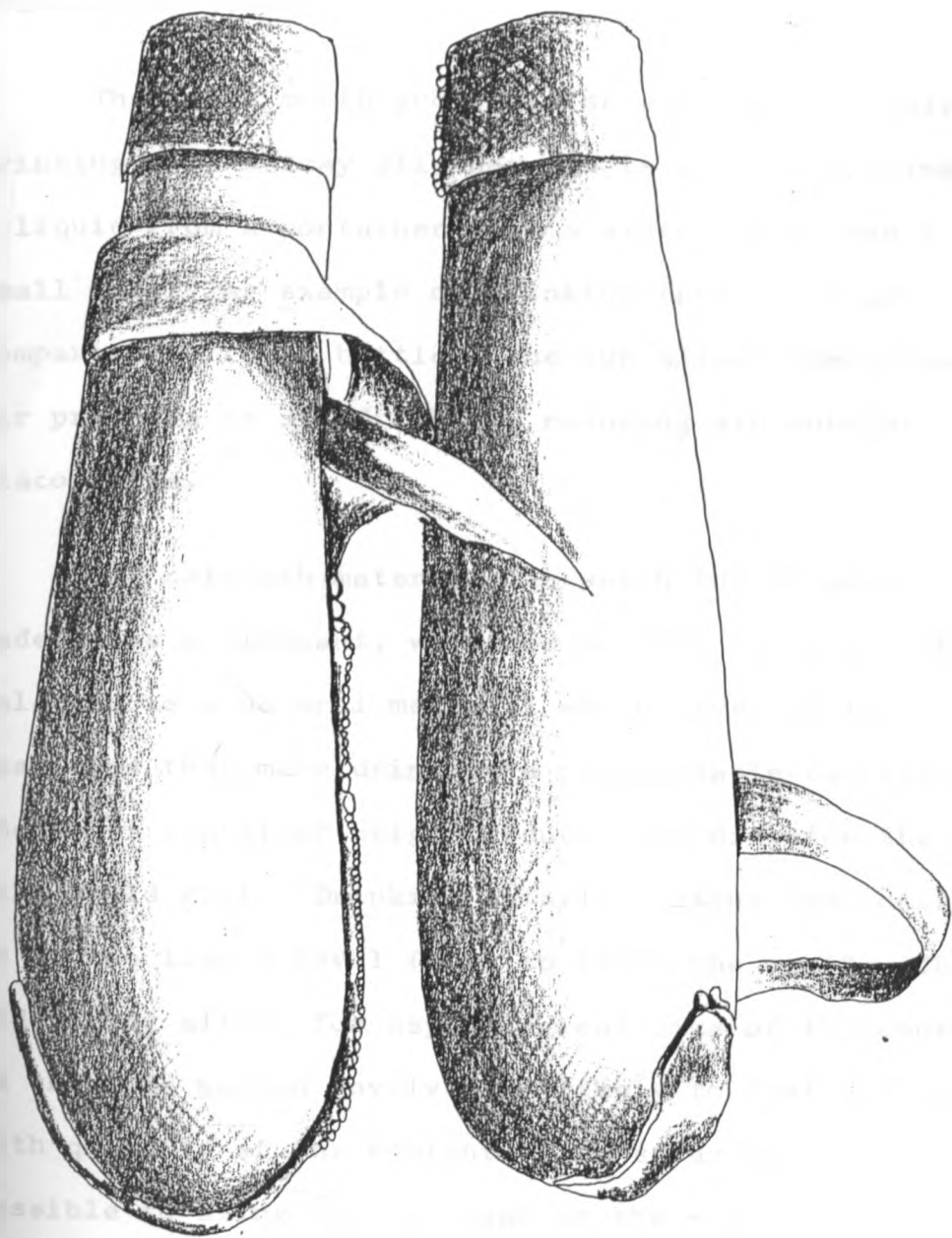


FIG 3.8 Esiangau, a gourd for drinking milk.

containers it is fitted with a lid and strap.

(FIG 3.8 to 3.10)

The large mouth provides for easy and flexible drinking. As we may all know, it is easier to drink a liquid from a container with a wider mouth than a small one. The example of drinking from a cup as compared to from a bottle. The cup allows atmospheric air pressure to aid drinking, reducing air bubbles and discomforts.

The calabash material out which the esiangau is made makes a pleasant, warm and natural contact. The calabash is a natural material which gives it the qualities that make drinking a pleasureable exercise. The short container height reduces the distance the milk would fall. Drinking entails tilting the container so as the liquid level falls to reach the mouth. The wider body allows for psychological size of the content in that the person involved is likely to feel satisfied with quantity of the content. The strap makes it possible to sling the esiangau on the shoulder when people are walking during the safari. In this position the container does not interfere with walking. With the help of the strap it is also possible to feed a baby while the woman is walking. The baby is often carried strapped at the back of the woman. In this position the milk can be handed over to the baby while the container is secured to the mother with the strap.

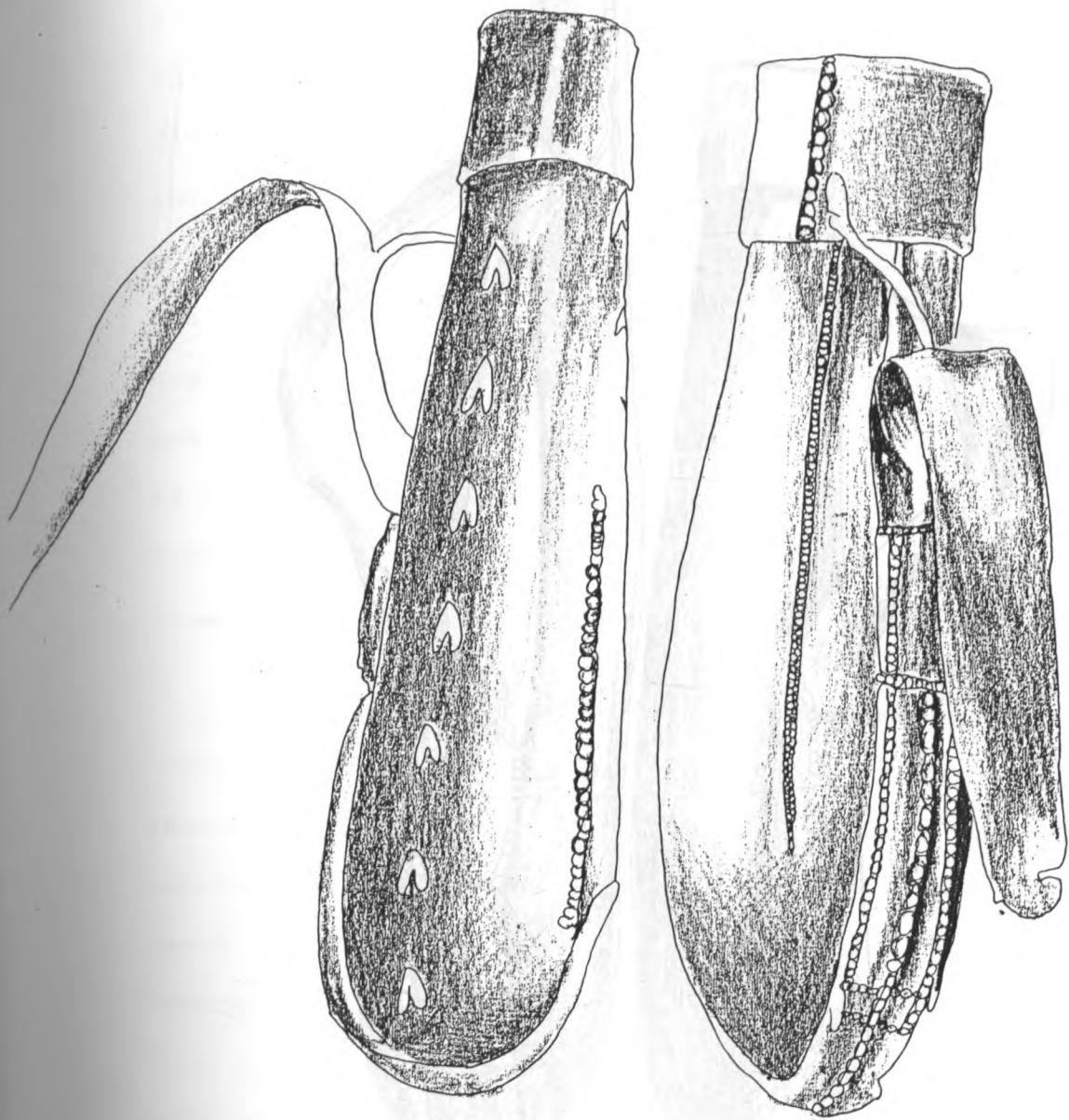


FIG 3.9 A variation of the Esiangau.

FIG 3.10

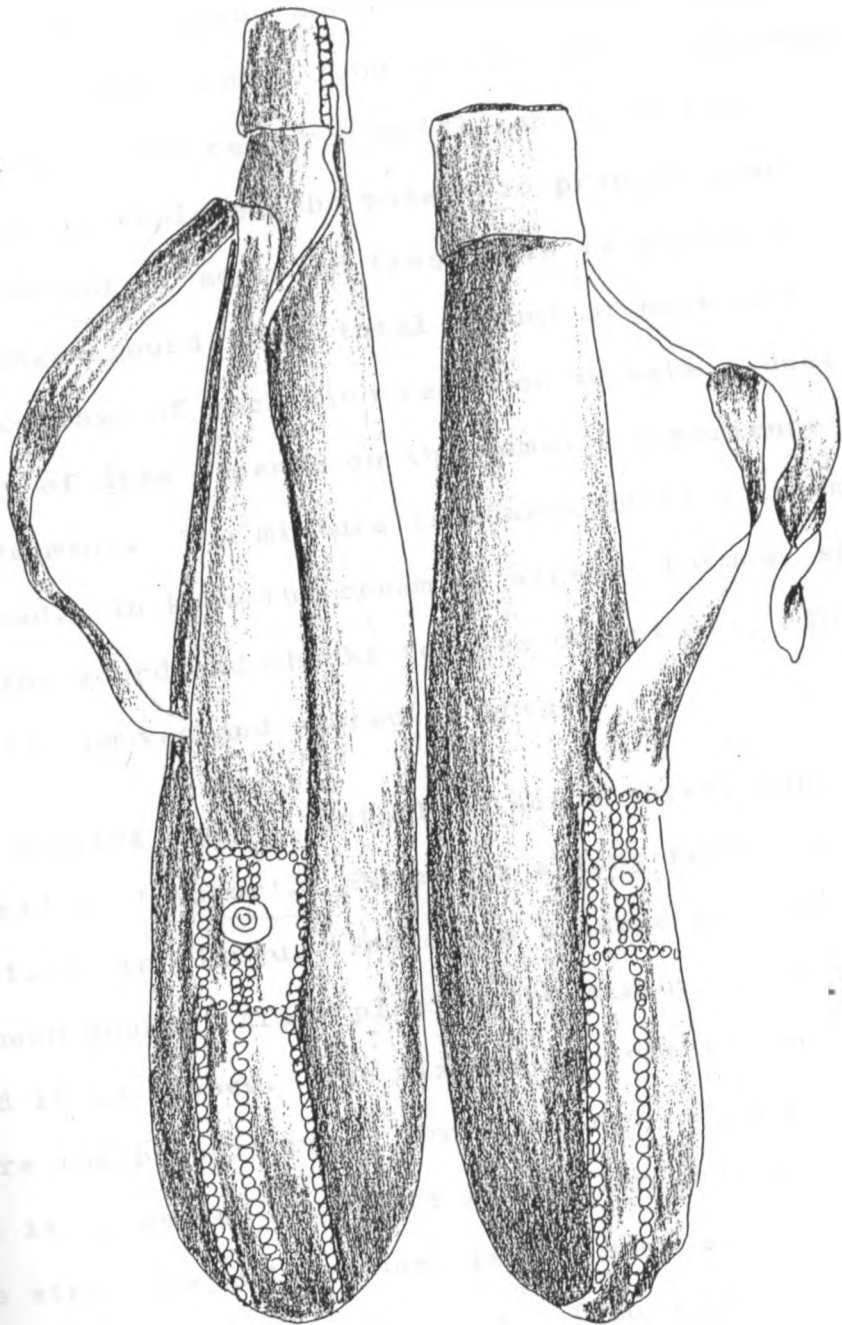


FIG 3.10 Esiangau, though a drinking gourd, may also be used for storage.

Processing of food and drinks include the making of ghee, cooking and brewing alcohol. In the past Maasai women cooked food in clay pots. However, at the time of the research metal saucepans had significantly replaced the pots. To prepare ghee a correct amount of sour and fresh milk is placed in the esiangau gourd. The total amount of milk and the percentage of each kind required to make a desired quantity of ghee depends on the woman's experience and judgement. The mixture is shaken until a cream is formed. To know the cream is already formed, she opens the gourd and checks for yes or not yet. The cream is removed and stored as ghee.

Brewing alcohol entails placing water, honey and 'sukuni' in 'emokor'. Sukuni is a long fruit called 'muratina' in Kikuyu. Emokor is a large and round calabash gourd. After placing the mixture in the gourd it is closed. The mixture is left to ferment before the brew is ready for drinking. Once ready then it is served to elders in smaller gourds of the same structure and the name is the same as the one in which alcohol is brewed emokor. (FIG 3.11)

Whenever there is a big party like during celebrations a large quantity is stored in 'olbene'. Other storage containers are: 'emala', for storing milk and porridge. 'Oloti', for storing fresh milk,

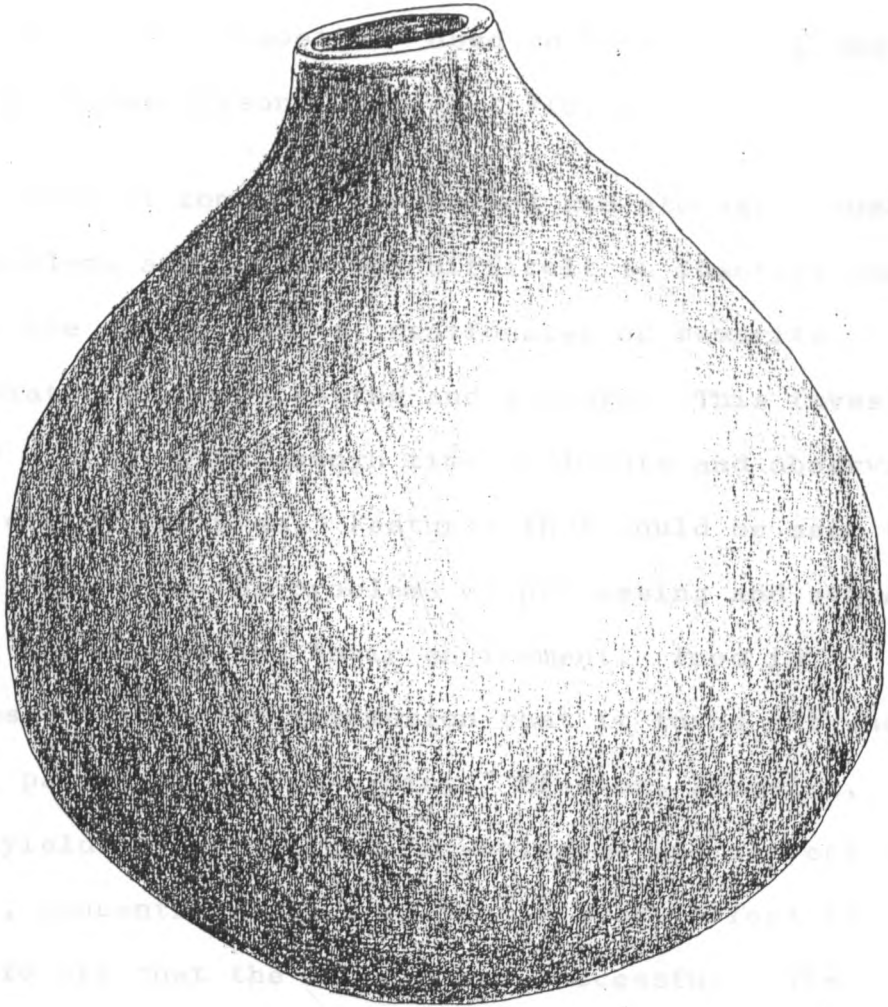


FIG 3.11 Emorkor, a large and round calabash gourd, used for brewing alcohol.

'Olkidong', a snuff box for storing and transporting tobacco. 'Oltoole ngare', a large steel barrel for storing water. 'Emootian' used in both storing and transporting poisoned arrows. (FIG. 12 & 13)

When it comes to processing and storage a number of problems arise. It was difficult to identify and state the design merits, rationales or demerits associated with processing and storage. This investigator did not have enough time to locate and observe such design features. Features that could be seen to be solutions to the problems of processing and storage among the Maasai and their environment. Food is processed under the assumption that it turns out wholesome, palatable and rewarding. Brewing, likewise, must yield a result which is wholesome and correct in taste, concentration and flavour. Every effort is made to see that the results are successful. The concern therefore is the achievement of food or alcohol that consumers find successful in all desired dimensions.

With all due respect to the difficulties expressed the following were still found to be true. The use of calabash gourds for processing, storage and service is satisfactory. The items to be stored or processed do not penetrate the containers which means the container materials are correct. The dead cellulosic materials of the calabash gourds do not react with the foods. Cooking in clay pots gives food characteristic

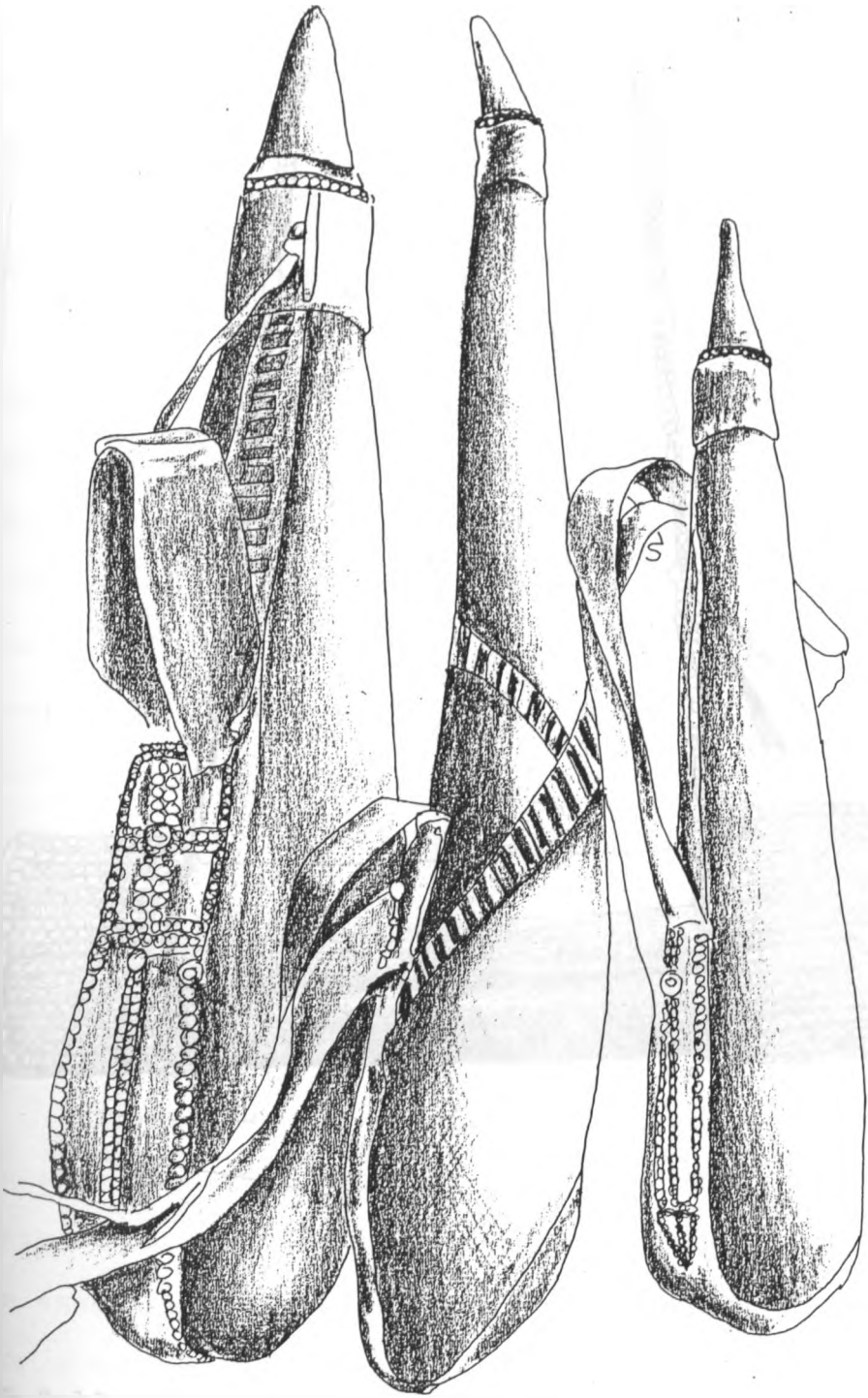


FIG 3.12 A group of Emala, Gourds used for storing sour milk.



FIG 3.13 Olkidong, A snuff-box

flavours. The clay absorbs the flavour from the food being cooked and may give the same away afterwards. Thus giving the characteristic flavour to food.

Conditions of Use Considerations

We have now seen how packaging satisfied product needs. We have also seen how particular Maasai activities demand the use of containers. The Maasai traditional packaging design were discussed and proven to successfully prepare containers to serve certain needs. The products of the design efforts work in the given social, enviromental and technological contexts. Perhaps it is now necessary to investigate further other needs which arise simply because containers are used. What we are about to discuss are design considerations that concern conditions of use.

In the process of use containers may break because of normal wear and tear or an accident. To extend the use life of the broken container, repair is essential. However, when the damage is too extensive for a normal repair service to be effective the container is discarded.

The containers also get dirty in the end; no matter the amount of care taken to stop containers

becoming dirty. So, someone has to clean the containers at one time or another.

From time to time there is need to inspect food which is in storage as fresh left-over portion. Food inspection is a necessary step to check whether it is in a desired state. Inspection among the Maasai is carried out by seeing, smelling or tasting.

Therefore the problems that are now under investigation are: maintenance, disposal, dispensing and inspection. Though the problems are important to the overall pattern of packaging they do not relate to the physical handling of the containers. Transportation, collection, processing and storage are the ones which relate to the physical handling of containers and these were already discussed earlier on.

Most milk containers are long gourds. When they are full to the brim there seems little problem of inspection. But when there is only a small amount of food in the gourd, say only one quarter full, some aspects of inspection are difficult. For example to see the content is hard because the small container mouth would not allow adequate light that would effect seeing. The inside of the gourd is too dark. At times desparate efforts such as aligning the mouth to direct sunlight are made. Such efforts are simply

evidences that inspection through seeing, when the gourd contains a small amount of milk, is difficult. It may even be necessary to empty the content in an open calabash so as to check the state of the product.

When the content is ghee then things are even more difficult. To scoop the ghee at the finger tip, a common method of inspection, is impossible since the mouth of the gourd is too small for an adult hand. The only alternative method of inspection is through smell. Perhaps one can say here that traditional Maasai packaging does not accurately solve the problem of inspection.

However, dispensing is not difficult in most cases. Take a powdery product such as tobacco for example. The method of consuming tobacco involves pouring a small amount in the palm of the hand. A pinch is taken between the thumb and index finger of the other hand. The pinch is rubbed in the nostrils from where it is inhaled. Any left over portion is easily returned to the snuff box. Here the mouth of the container is designed and shaped to facilitate easy dispensing and filling. In the same way the emokor, oloti, emala and elepet all facilitate easy removal of the products they contain.

The Maasai containers are made to last for long periods. They are not a one-time-use or disposable

containers. However, circumstances such as accidents and the fragile nature of the gourds frustrate the high hopes of container lives. The average use-life of a gourd is about four years. The snuff-boxes and arrow bags may last as long as thirty years. Anyway, the gourds are most frequently damaged because they are also most commonly and widely used. Slight gourd damages are often repaired. Repair is by stitching together the broken pieces or to mend a cracked area of the gourd.

In the event that a gourd somehow has to fall out of use and nothing can be done to extend its use life, it is discarded. Such are thrown away or left behind when people move to new homes. The discarded container remains do not conflict with the environment that they soon decompose. Termites eat the calabash remains thus accelerating decomposition. Children may use the remains as toys and, as expected of children, even the large pieces of container remains are quickly broken to smaller pieces.

The other agent which accelerate decomposition are domestic animals. The animals roaming within and outside the manyatta trample on the container remains, helping them to degenerate into soil fast. Consequently the disposed containers have little chance of remaining around to cause health hazards and be unsightly.

The other maintenance form is routine washing and cleaning. This maintains the containers clean and in a state that can be used. The steel drums are washed before they are filled with water. The snuff boxes are simply dusted clean, normally nobody uses water to wash the snuff-boxes. The milk and porridge gourds are washed at least once in the day. Water supply and wuanntity is often inadequate in the manyatta. The situation leads to preservation and economy of water. The gourds therefore do not get washed and rinsed thoroughly.

The Maasai woman takes additional step to sterilise the otherwise not too well washed gourds. She treats the gourds with a burning charcoals of a local olive tree to de-odorize and sterilize the gourds. The remains of charcoal in the gourd are removed with a brush. This brush is made by tying cow tail hairs onto a stick.

Here the main problem affecting the maintenance of containers is the acute shortage of water. Then one wonders whether water shortage affected the evolution of containers. Or whether shortage of water generated the skin-based containers. The containers made from cow hide or skin need no washing. While the water shortage persists one is likely to say that the traditional Maasai method of cleaning the containers is not adequate.

It seems there are no clear and distinct temporal patterns of container rproduction among the Maasai. One cannot say that it is twice, thrice or more in the year. The time for this study was not much enough to locate the number of gourds a woman buys in a period of time such as the year. However, it was observed that whenever a woman wants to buy a calabash gourd she travels to the local shopping centre. In the centre there are two market days in the week, on Wednesdays and Saturdays. These are also the days in the week when cattle dealers from other parts of the country go buying cattle.

On market days the Maasai woman buys the raw gourds from Kikuyu traders who travel from as far as Nairobi to the shopping centre to sell the commodity. The raw gourds are processed, treated and fitted ready for use. Though it was impossible to observe a clear pattern of container production, it was possible to learn about some of the patterns. One is that container production depends on when a woman gets married. Other women will donate gourds to a newly married woman. But she still has to make her own. Two, it depends on the amount of milk the woman is able to collect in the day. The amount of milk in turn depends on the number of milk-cows the woman has. She also needs new gourds depending on how careless or careful she is in handling the containers. She will go buying

new gourds more regularly when she is careless. Container production will also be more regular when the other users are careless.

The speed with which a container can be produced depends on the woman's ability, skill and amount of time she has on her hands. Recording time became impossible since nobody sits down to make a container in one stretch. Work is done in piecemeal fashion and for only a little while. Apart from the gourds the other containers are capable of lasting for many years. To determine their frequencies of production would require much more time than was available.

Container Decoration

Women design or decorate container surfaces in four different ways. One method is that a piece of leather is first decorated with beads of different colours and shapes. The women seem to like the following colours of beads: white, blue, yellow and orange. The shapes are generally spherical, oval and disc. How does a woman decorate piece of leather with beads? Decoration through the use of beads involves stringing them together into a line of a desired length. The line of beads is then attached to the skin giving an impression similar to a drawn white, blue, yellow or black line depending on the colour of beads on the line. The line of beads are displayed on the leather in a specific pattern or shape. Most of the

resulting patterns are rectangular or circular.

(FIG 3.14)

Secondly the woman burn container surfaces, as means of producing images. In this method a piece of metal is heated over the fire. The hot metal is then used to burn the outer surface of a gourd. The burnt area is black or dark brown. The gourds are generally beige in colour. The burnt area stands out against the generally lighter background of colour. It seems only one shape is the result whenever burning is employed. It is a V-shape. The V is repeated to suggest direction towards the mouth or bottom of the gourd. (FIG 3.15)

There may be reasons for this shape. With a straight piece of metal and without using the tip, only the side, the most accurate resulting shape is a V. The shape could have resulted from observing the domestic animal foot prints. Whenever a herd of cattle is lost, it must be found. When cows are lost, to find them herdsman follow the direction of the V to find the animals. Perhaps the direction of the V is suggestive of a wish to have milk enter the gourds and go into the gourd. This could be translated to mean the wish for more cattle, wealth and food.

The third method still involves the use of a metal piece. Only that this time it is cold. The

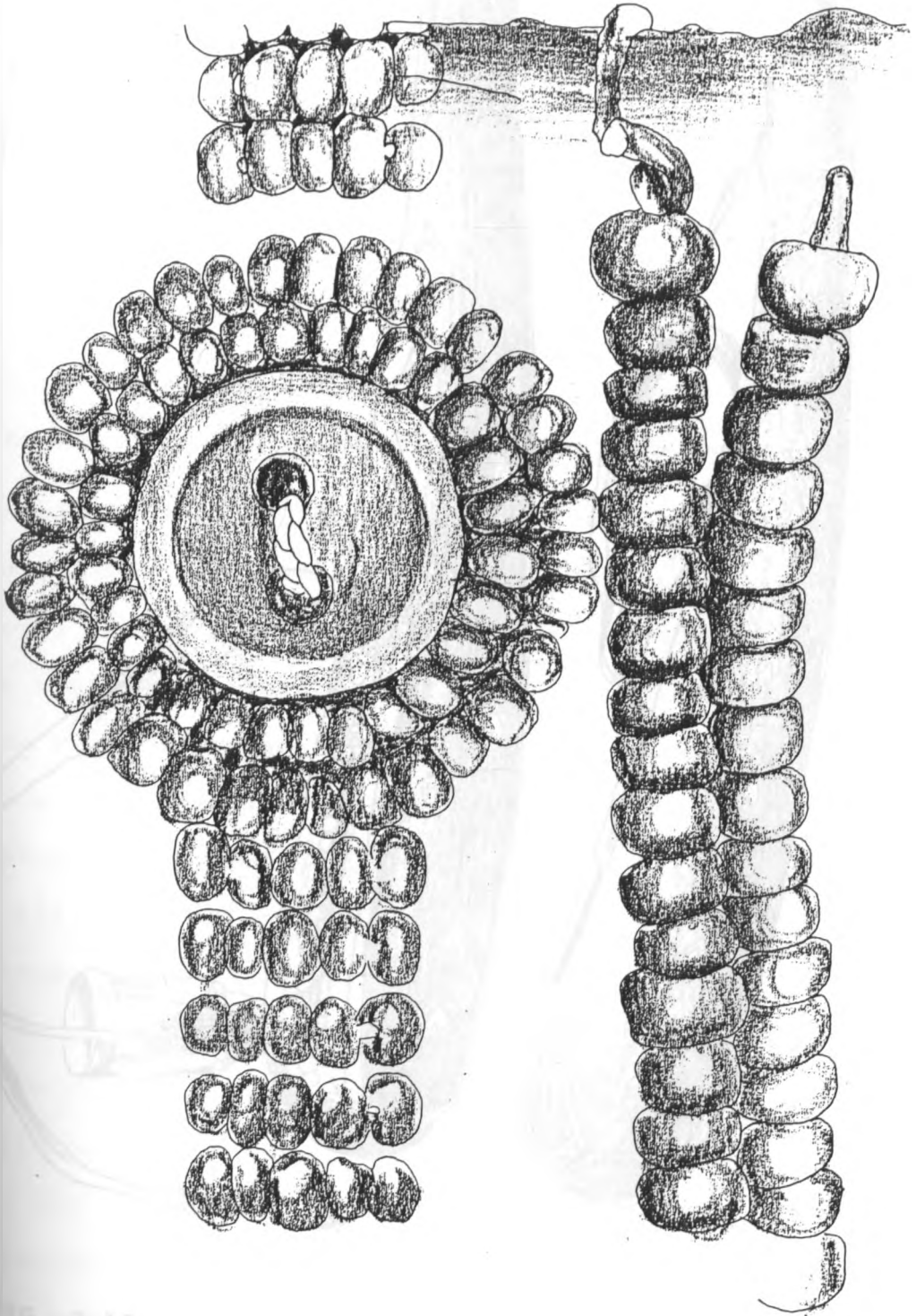


FIG 3.14 Women fashion beads in circular forms or straight lines when decorating gourds.

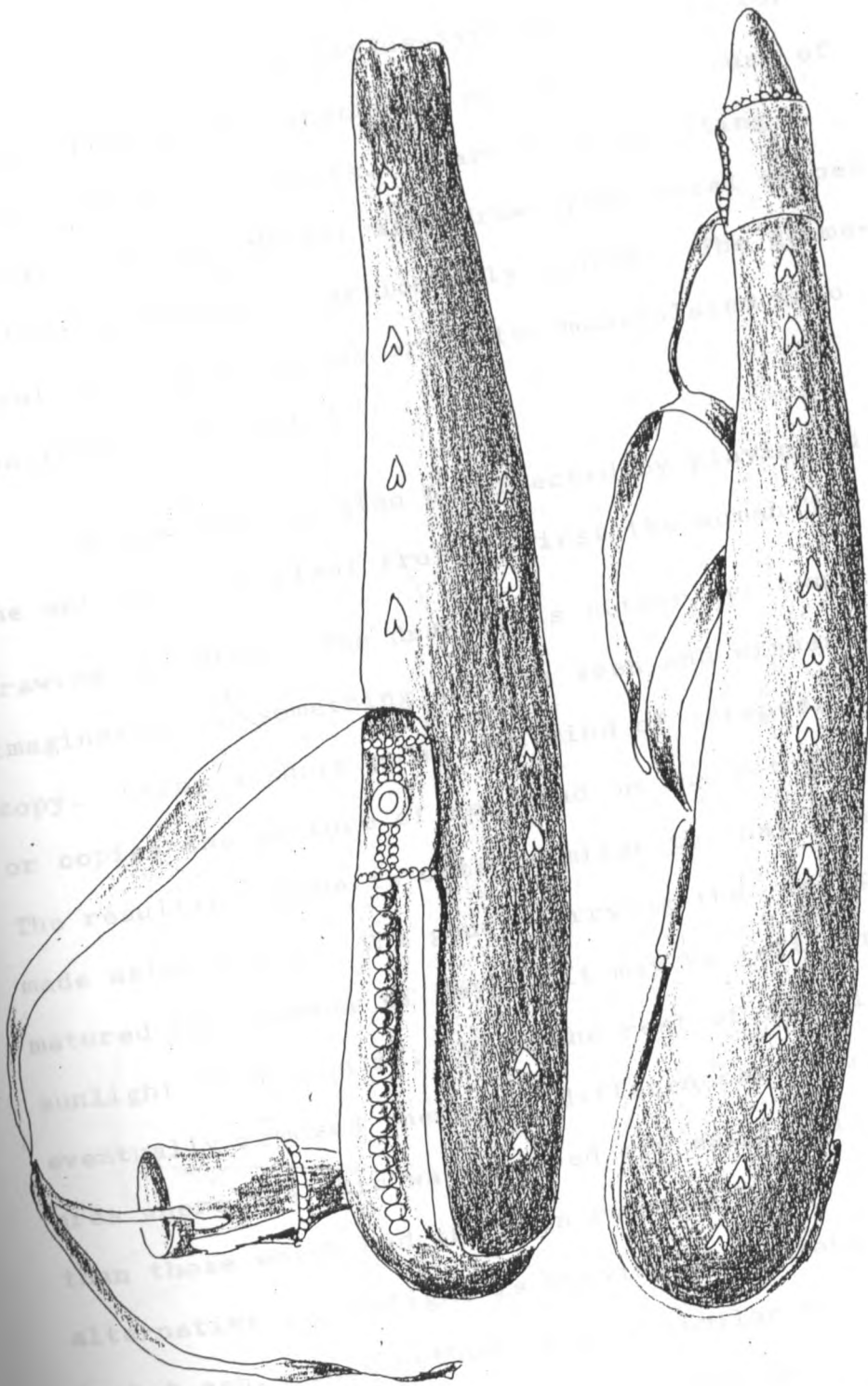


FIG. 3.15 The 'V' point to the mouth of the gourd.

piece of metal is sharpened at one end and used as if it were a stylus. The stylus-type of metal is for drawing shapes. The inscribed shapes are picture of animals, birds and plants. Apart from depicting natural forms the Maasai also draw geometrical shapes on their containers, particularly gourds. The geometrical or natural shapes are often manipulated into a pattern. (FIG 3.16)

Decoration can also be effected by playing with the wet calabash plant fruit. First the woman has a drawing in mind. The drawing is either her own imagination or something she has seen and wishes to copy. Using a sharp point she kind of scrapes, draws or copies the picture of her mind on the wet gourd. The resulting shape is often similar to that which is made using beads. The gourd carrying the design is matured in a number of ways. It may be left for sunlight to act on it. When the rest of skin is eventually removed there are differences. The surface area where the skin was scraped off earlier is darker than those which had the skin removed later. The alternative to sunlight is burying the calabash fruit in hot ash. This method is very similar to that Meru peoples of Tigania use. The Meru and Maasai peoples had some cultural interaction at this location. It is suspected that, at this location in history the Meru adapted from the Maasai, or vice-versa, the method

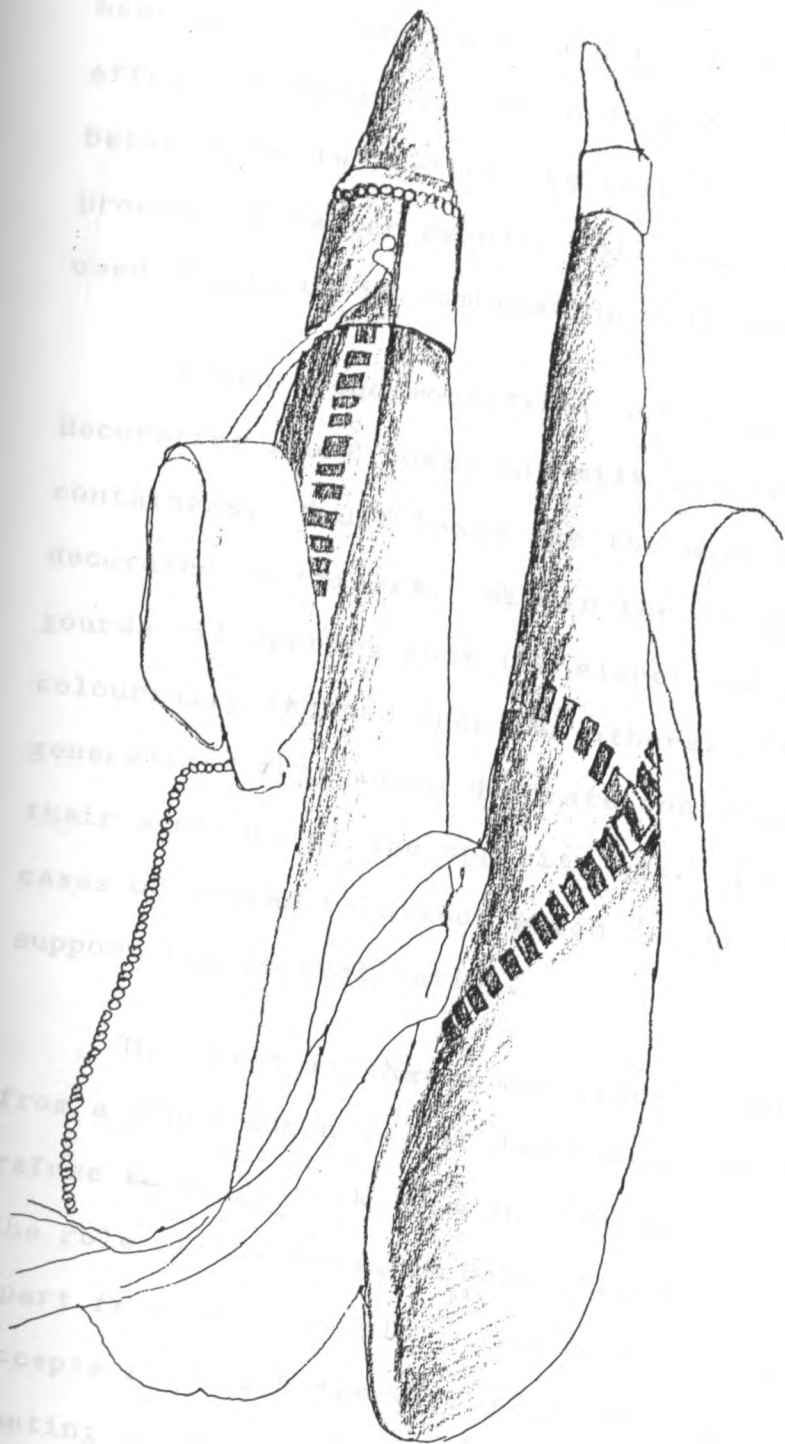


FIG 3.16 The scraping on the gourds are geometrical in shape.

of decoration, Anyway, burying the wet and design bearing calabash fruit in hot ash generates the same effect as sunlight. The only point of difference between the two methods is that the hot ash method produces a faster result. All these methods may be used singly or in combination with each other.

Women spend more time, attention and energy decorating snuff boxes and milk gourds than the other containers. Snuff boxes are the most colourfully decorated containers. Within the category of milk gourds, it appears that the elepet and oloti are more colourfully treated than the others. It can be generalised that women decorate containers to please their admirers of the opposite sex. There are two cases of social behaviour which can be adduced to support the generalisation.

The first is that a man finds it odd to drink from a gourd which is not decorated. He may even refuse to drink milk from an undecorated gourd. Yet the role of the woman is basically to feed her husband apart from other people in the home. Whenever a man accepts food from the wife it is more than simply wanting to eat. The man at that time is accepting the woman's role and love. Refusing an offer of food on the other hand is taken to mean despising the role of the woman and expressing general hatred towards her. In this kind of setting men are treated as kings and

nobody wishes to disappoint a king. The kingly treatment of men is not only a Maasai social tradition, it is a universal tradition. Polygamy ensures the kingly treatment in that the man always has an alternative to himself, thus forcing the woman to bow down to his wishes.

The other social behaviour is concerned with the snuff box. A woman may decorate a snuff box lavishly and present it to a man. The gift of a heartily decorated container expresses a great affection towards the gift target. The feedback of this communication or expression is sometimes a well grown cow or bull. Among the Maasai cattle is of central social importance. Therefore, a reward of a bull or cow is of central importance to the woman.

The above cases of social behaviours underline the fact that Maasai women decorate their container so as to gain user acceptance. The most important user is the lover and spouse. Other women in the manyatta are important observers. They despise any woman who does not decorate her gourds. Nobody voluntarily wishes to be an outcast and despised. The body of women in the manyatta are like law enforcers to this pattern of behaviour. In other words design is done to win their admiration and approval.

In the end it is possible to say this. That because containers are used they get dirty so they are cleaned. They are repaired so as to keep them in a state of use. They get useless and disposed off. Container graphics serve the purpose of gaining user acceptance.

Observations and Summary

At the beginning of this chapter it was stated that two forms of packaging exist among the Maasai: traditional and modern forms. This means that the use of modern containers is encroaching in a zone where traditional containers are and should be used. In this respect, modern packaging could be thought as pirating on the traditional packaging. If the situation continues unchecked, there is a likelihood that modern packaging will unduly replace traditional packaging art and craft. Saucepans, steel drums, paper bags and cans are undercutting and replacing gourds and skin bags. The said modern containers are products of modern designs, technology and industries. Their presence and dominance in this rural setting may not only mean undercutting and replacement but it may also mean the disappearance of an aspect of a culture.

When the research was being carried out, manufactured foodstuffs such as maize flour, tea, sugar and

rice were already popular. Distributors and traders transport the products to the rural areas using modern transport and containers. Manufacturers, traders and distributors wish to realise profits. To do so they must find new markets. The Maasai are only a part of their wide expansionist programme. Fibre sacks, tins, craft paper bags and many other modern containers are important instruments of this programme. The consumption of the factory-made food products also means the use of modern containers such as saucepans, cups and plates. Now we can tell how modern containers reach the Maasai. It is a part and parcel of the modern and aggressive marketing strategies, modernization.

Perhaps the Maasai have no choice but to purchase and consume modern products, and subsequently to use modern containers. Modern education through District Education Officers, other administrators and educationists offer no chance to the villagers. Rural educators emphasize on a balanced diet. They say that manufactured food is an important part of the balanced nutrition. Their continuous preaching always include an aspect of manufactured food and modern packaging. The Maasai, who goes to school through modernization will change the views and practices of the villagers through diffusion of innovations. Consequently modern packaging is gradually gaining a firm ground in this rural area. It is therefore easy to argue and explain

the growing dominance of modern packaging over traditional packaging.

It is possible that modern packaging will completely outdo traditional packaging. This is bound to happen because of increase in education, modernisation, technological change and community wealth. At this time a number of losses is expected. There will be a loss in traditional food characteristics such as smell, taste and may be appearance. Such characterisitcs are now best achieved through traditional packaging. There will also be a loss in the local traditional behaviour and cultural values.

By way of summary one can state that Maasai traditional packaging serves the needs of products and users. Maasai products, as all the rest, need protection from the environment, insects, organisms, animals and people. Users need protection against products which make them dirty. Without protection products loose their desired and essential characteristics while users suffer from dirt and ill health.

Traditional containers are designed and made to function and satisfy users. Therefore, the containers have been working well throughout history under the social and environmental circumstances in which the Maasai tribe has been living. Whatever the shortcomings of a technological nature that these containers had, the

Maasai had no known remedy under their traditional technology. Charcoal treatment and other forms of herbal treatment described above comprised the technical answers to some of the problems of food preservation; while shapes and container design provided answers to ergonomic problems.

CHAPTER FOUR

DEVELOPMENT, SIGNIFICANCE AND PROBLEMS OF MODERN PACKAGING IN KENYA

Packaging Before Independence

In Kenya one can identify two forms of packaging, traditional and modern. It is possible that modern packaging started when the Arabs came to Kenya. They Arabs culturally influenced the Coast Province more significantly than other parts of the country. The introduced a new culture in that part of Kenya and with it they perhaps also introduced a new form of packaging. It would appear the Arabic culture and its mode of packaging did not reach the rest of the country with the same impact as it did in the Coast Province. The Arabic type of containers were therefore more prominently used in that region than elsewhere in the country.

After the Arab traders and merchants the Europeans colonised Kenya. Colonisation seems to mean imposing a culture on the subjects of colonisation, in this case the Africans in Kenya. At the time the Europeans imposed their culture on the Africans they also did the same with packaging. After all packaging is only an aspect of a culture. Between the Arabic and European forms of packaging, the latter seems to have had a more important industrial and commercial effect. This is

because industries and commerce is a European way of life. The European culture has had greater influence on the majority of Kenyans than that of the Arabs.

Thus the European form of packaging had not only a more deeply rooted influence, but a broader one. The European form of packaging is today the backbone and major influence of modern packaging activities in Kenya; industrially, commercially and socially. The outstanding characteristics of the containers involved are glass, metal and plastic materials as well as machine mode of production. The Asians, who were basically European assistants during the period of colonisation, hardly made any influence on Kenya packaging scene at the time.

Prior to Kenya's independence in 1963 most of the economic activities associated with packaging were British in character. The British were the colonial masters. One could argue and support the fact that packaging in Kenya before independence was primarily British. Before independence Britain ruled Kenya. Industrial and marketing activities involving packaging were British in origin and control. It can be understood the British furthered their commercial and cultural interests and hence packaging forms. The other reason is that many of the consumer products were also British. The containers that were used in their distribution and sale had to be British. A few selected advertisements

which were published in the East African Standards, now Standard Newspapers Limited, are evidences of British dominance of commerce and packaging at the time: one of them run as follows.

I like Bottles

Remember the fantastic outside bottle that used to stand in the chemists' window when I was a kid. Believed the coloured water in them some fabulous chemical. When I was a bit older used to put messages in empty bottles and launch them in the sea. Gave first girlfriend a cut glass perfume bottle. Forget her name now. Expect she is a grandmother. Not a youth myself. But still like bottles. Demijohns in wicker cases. Carboys. Name amuses me and the green glass looks fathom deep. Best of all though is a tall bottle on a silver tray.....the tall triangular bottle fitted with the finest Scotch. You will like Gran's Scotch Whisky.¹

(FIG 4.1)

It is unfortunate the above copy of the advertisement was not signed. As a result it is impossible to know or not it was written in Kenya. Still, the nature of the copy and the accompanying illustration encourages one to say the origin is British, within or outside Kenya. The most likely person to sing a poem about bottles at this time would be a European. For the African, he would rather sing poems about pots and gourds, if the poems must be on containers. The habit of transmitting a message in bottles; and the idea of presenting to a girlfriend a gift of perfume, are more likely to be ways of the Europeans than anybody else. The Europeans were more likely British because the product in the advertisement is British: "Grant's Scotch

FIG 4.1 Grant's Scotch Whisky advertisement



I like

BOTTLES

I like the way the bottle
 looks, the way the label
 stands out, the way the
 glass is cut, the way the
 cork is fitted, the way the
 bottle is balanced, the way
 the bottle is held, the way
 the bottle is opened, the way
 the bottle is poured, the way
 the bottle is drunk, the way
 the bottle is enjoyed.



You'll like GRANT'S SCOTCH WHISKY

Whisky". The gentleman in the illustration is caucasian in race.

Something in the city' is a phrase which covers everything from the ticket collector at Bank Tube Station to the Governor of the Bank of England. The term cigarette likewise covers a preferences. The box on my desk is filled with State Express 555. I like them and people who come to seek my advice like them.

State Express 555

The best cigarette in the word.² (FIG 4.2)

The advertisement mentions places which are in Britain, therefore implies situations and in the end applications which are British. The box, which is a container for the cigarettes, is also therefore British. It is unlikely that the character in the advertisement would have been palatable to an indogenous Kenyan at that time in history. Here again one can see a case of British packaging based on her product but in the Kenyan geographical setting. Consider the following:

Nivea replaces the natural oils and moisture of your skin. Everyday the sun, wind, weather dry out the precious oils and moisture that your skin must have to keep it young and healthy. Nivea replaces both the lost moisture and precious oils because only Nivea contains Eucerite - the nearest thing to your skin's natural oils. Eucerite absorbs the moisture and carries it deep down into your skin, where it can do the most good. Use Nivea regularly to keep your skin beautiful. (FIG 4.3)

It is taken that the Nivea advertisement was directed at a woman. The woman was unlikely to be an African. The African woman at the time haboured no ill-feeling with the wind, weather and the sun.

FIG 4.3 Nivea Advertisement

NIVEA replaces

the natural oils and moisture of
your skin!

Handwritten-style text, likely bleed-through from the reverse side of the page. The text is mostly illegible but appears to be a paragraph of descriptive text.



Nivea Creme in tin
available everywhere

For its moisture for its natural oils

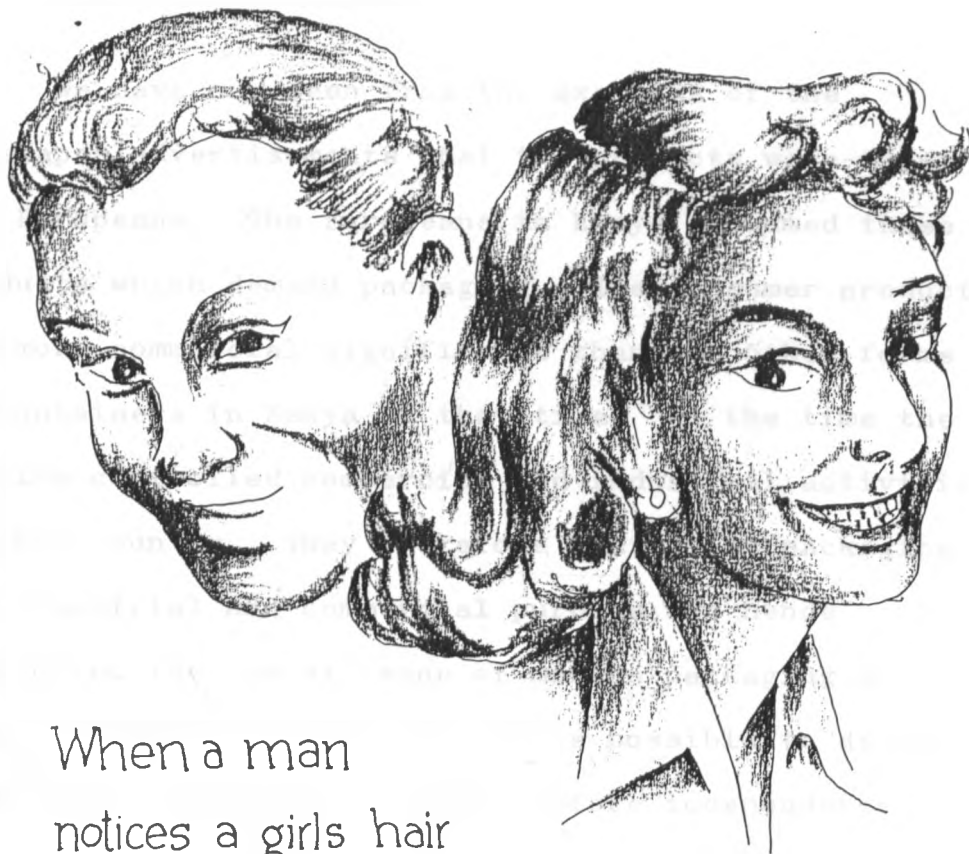
SKIN needs **NIVEA**

In the sun she worked and generated enough oil through sweating. She probably needed no additional oil on her skin. This woman was unlikely to have time for applying Nivea on her skin everyday. The European woman on the one hand feared her skin getting dry and wasted due to tropical weather actions. She needed younger appearance more than the African woman. The advertisement was intended for her. The woman was likely a British because of the great number of British ladies present in Kenya, giving a reason for commercial activities. The woman in the picture is caucasian. Consider the following quotation also:

When a man notices a girl's hair.....she is using a Silvikrin shampoo. Everytime you use a Silvikrin shampoo you are giving yourself the surest promist of glowing, silky hair - hair that captivates by its sheer loveliness! You see, every Silvikrin shampoo is enriched with Pure Silvikrin, and brings new health and beauty into every single strand of your hair. For hair that men like to notice, use a Silvikrin shampoo and make certain of perfet hair health. Pure Silvikrin does your hair good. (FIG 4.4)

Here, the hair qualities the woman was expected to get after using Silvikrin is alien to African-silky and glowing. This is considered adequate proof that the shampoo was intended for use by the European woman. Since the product was transported and stored in a container, one could be correct to say that such containers were fashioned with European aspirations in mind. The appearance, shape and size were made to be suitable for the European idea of good look and

FIG 4.4 Silvikrin advertisement



When a man
notices a girls hair
she's using Silvikrin Shampoo

It is important for men who are into appearance and
like to attract their lady are often inspired by the way
she and many more women wash their hair. The use of special
shampoo is most noticeable by men who want nice and smooth
hair. The use of such shampoo will be most likely to be the
key to the man's hair. The use of
the same hair care product
will bring great natural results.



Silvikrin shampoos contain
Pure Silvikrin -THE HAIR'S NATURAL FOOD.

conditions of use and storage. The pictures of the models are also caucasian.

We have now seen from the examples of the newspaper advertisements that the products were meant for Europeans. The Europeans in Kenya consumed these products which demand packaging. The consumer products had more commercial significance than the other forms of containers in Kenya at that time. At the time the British controlled commercial and industrial activities in this country. They therefore controlled packaging for industrial and commercial purpose and hence controlled the overall zone of modern packaging in Kenya. That being the case, it is possible to assert that modern packaging in Kenya before independence was dominantly British in character.

The truly Kenyan traditional packaging is the use of container before the Arabs, Asians and Europeans came here in Kenya. While they may not be of great economic importance, in the modern, industrial and commercial sense, they are certainly of social importance to the rural Kenyans. It is because of this that the containers have persisted, surviving the aggressions of modern packaging. The containers involved in traditional packaging are characterised by use of natural materials for their production. They are far less standardized in colours, shapes and sizes when compared to modern containers.

Packaging After Independence

When political independence eventually came in 1963, modern packaging was greatly encouraged. Encouragement and promotion of the same continued because Kenya chose to adapt the successful norms and economies of the world, the western world in particular. Those successful economies employed modern packaging. It seems Kenya largely surrendered to the British mode of life and economy and therefore continued with the same after independence. This simply meant the active continuation with, survival and growth of modern European packaging. However, the political significance of independence was that an African was allowed to participate more actively in the economy of the time and control such order politically. The African therefore inherited the political and social mechanism to continue with modern type of industrial production and commerce which could not be carried out effectively unless modern Westernised mode of packaging was employed. In simple terms, European goods required European packages. If the quotations below are considered the truth of this statement can be verified.

But my ministers and I recognise that the will and energy of the Government and people require guidance in order to make the greatest possible progress over the next six years.....

We plan, in order to attain our goal, to attain new economic institutions and modify old ones, freely choosing our models from the successful economies

of the world, adapting them to suit Kenya's conditions and,.....

To ensure that the benefits of an expanding economy are widely enjoyed, we will promote the greatest possible participation of African citizens in both the public and private sectors of the economy.⁵

The Government at that time planned to make the greatest economic progress within a period of six years, the period of the Development Plan. The progress could be attained through many channels. One way of doing it was produce more using the old institutions. Such old institutions were basically British. The second way of doing the same was to adopt only from successful economies of the world. However, later political developments indicate that there was virtually no choice save to continue with the old master - Britain.

The British economy was spread worldwide through the British Commonwealth Countries. If the fact of wide-spread was anything to go by, the British economy might have been chosen for application in Kenya. Modern economy of the world at that time dictated modern packaging. It therefore did not matter where Kenya was to choose from, the end of it all would remain modern packaging. There was little room for Kenya traditional packaging. The political encouragement of Africans to participate in modern economy simply provided a surer base for modern packaging to survive and grow.

From the time of independence in 1963 Kenya has promoted both agricultural and industrial developments. The two faculties of Government concerned are considered important elements of the overall economic and social developments. Agriculture, agro-based industries and manufacturing industries have greatly grown since independence. Packaging as an independent industry serves agriculture, other industries and services. It has therefore correspondingly grown. Packaging industry is important when one considers that Agriculture is the economic mainstay of Kenya.

The products of agricultural activities depend on packaging. Harvest of crops, their local distribution and export, storage and processing all depend on packaging. Tea is picked using baskets. Coffee is transported from one point to another within the country and for export in fibre bags. Oranges, tomatoes, potatoes, onions, and carrots are sold in woven plastic bags. Maize flour is sold in paper bags. Tea and coffee, processed ready for making beverages, and sold in retail plastic bags, cartons or in metal cans. No doubt, the success of Agriculture and associated industries need packaging. (FIG 4.5)

The demand and growth of packaging therefore seems to depend partly on agricultural activities. The quantity of agricultural production, deliveries



FIG 4.5 Coffee Package

and consumption control the quantity and input of packages. Together with the other manufacturing industries, there is a considerable influence on the input and output from the packaging industry.

It seems there is a substantive packaging value in Kenya. In 1973 the approximate value was forty million pounds (K£40 million). Out of this the material content is probably ten million pounds (K£10 million), one quarter of the total value. The material content was probably imported from European in the form of paper, plastics and metal cans.

Total packaging value in Kenya is probably in the order of K£40 million with a material content of K£8 million.⁶

The packaging growth rate in Kenya is at most twenty percent. This means the packaging value now in 1984 is much higher. A simple arithmetic calculation below reveals a value of K£297 million.

	40 million pounds in 1973	
40 + 8	= 48 million pounds in 1974	
48 + 9.6	= 57.6 million pounds in 1975	
57.6+11.5	= 69.1 million pounds in 1976	
69.1+13.8	= 82.9 million pounds in 1977	
82.9+16.6	= 99.5 million pounds in 1978	
99.5+19.9	=119.4 million pounds in 1979	
119.4+23.9	=143.3 million pounds in 1980	

143.3 + 28.7 = 172 million pounds in 1981

172 + 34.4 = 206.4 million pounds in 1982

206.4 + 41.3 = 247.7 million pounds in 1983

247.7 + 49.3 = 297 million pounds in 1984

The growth rate of packaging and therefore value in given in the quotation below.

Packaging growth rate is high (13 percent increaisng to 20 percent) with most of the materials expensively imported.⁷

Packaging in itself is an industrial sector of the Kenya economy. There are many examples of package based industries. They are Metal Box, East African Packaging Industries, Tetrapak, Metoplastics, Pan Plastics, East African Paper Bag Manufacturers and EMCO. The list is by no means exhaustive of the major industries that are concerned with production of containers. As an industrial sector it gives skilled, semi-skilled and unskilled employment to Kenyans. Perhaps the significance of packaging in Kenya could be seen from this point - it gives employment opportunities.

Now let us observe briefly how packaging relates to the national development programmes. We already saw the usefulness of packaging in particular contexts: a growing service, and financially viable industry besides generating employment opportunities. What is

important at this point is a broader association between packaging and targets that, when reached, lead to national development. Such targets are often specified in the National Development Plans. According to the then Development Plan, 1979-83, the basic needs of the population are in the fields of health, nutrition, education, housing and social services.

The alleviation of poverty and the fulfilment of the basic needs have always been a major concern of Kenya development efforts. This chapter relates the Government's concern for the basic needs of the population during the next five years in the fields of health and nutrition, education and training, housing, social services and water.⁸

To draw the relationships between packaging and national development goals, we shall use the case of nutrition and health. The goals are the provision of health and food to as many people as possible throughout the country. Good health can be achieved through either preventive or curative medicine.

For drugs to reach the remote corners of the country from Nairobi, as the centre for the manufacture and distribution of the drugs, the drugs have to be transported. Packaging is used and therefore vital in the distribution of drugs. Drugs from Nairobi are taken to regional and district health centres in paper-board or corrugated-board cartons, glass or plastic bottles, and various containers. Once at the health

centres packages are still used to serve individual patients with the drugs. Here again plastic cups or small paper drums are employed.

From the chemist's shops we can buy drugs. The drugs are sold in bottles, cartons and various types of containers. It is now clear that containers are important in the distribution of drugs throughout Kenya. The achievement of the goal, provision of good health to Kenyans either through the private or public sector, means distribution of drugs and in the end national development. Therefore packaging is useful in attaining National Development goals.

Like health, nutrition is recognised as a basic need in the National Development Plan. Kenya plans to feed her nationals as adequately as possible. The production of food in this country is uneven. One part of the country is capable and does produce more food crops than another. This is so because of a number of reasons. One is the natural geographical factors like soil fertility, rainfall and others. The Western Province produces more maize than North-Eastern Province because the land is more fertile and has greater rainfall per year.

Secondly, food production also depends on cultural activities. The Kikuyu tribe produce more food crops than the Maasai because the latter is generally nomadic

instead of agricultural. The resulting pattern is that one part of the country produces more food than it needs while another produces far less than it requires. Because food production is uneven, there is need to transport food from where there is excess production to those areas where there is less production. Food has to be transported to urban centres where food crops need packaging.

Without proper packaging much of the agricultural produce would be wasted. Processed food like wheat and maize flours are transported and used to feed the nation in paper packages. Containers are used from the point of harvest to consumption to reduce waste, make distribution possible and in the end facilitate the achievement of the goal; that of feeding the nation.

The Problems of Packaging in Kenya

The packaging industry has been seen to provide significant economic, political and social services to this country. However it also generates a number of problems. Briefly the problems are importation of packaging materials and lack of technical and creative skills. The packaging industry is too sensitive to be reliable. The present attitude of disposable containers after a one use period is waste of resources, energy, finances and may lead to health hazards.

Packaging may lead to food poisoning and as a result becomes a health problem.

The situation of packaging materials in Kenya depends, to a large extent on imported materials, such as paper, boards, plastics, tin-plates, glass and fibre. The 1973 annual consumption of paper, was tons 70000; plastics 4000 tons, tin-plate 18000 tons; fibre 10000 tons and glass 28000 tons. By now the consumption of most of these materials must be more than double the quantities in 1973.

Paper demand is of the order of 70,000 tons with indication that domestic production will not satisfy and volume requirements. Plastics demand is ill-defined but is probably only about 4,000 in packaging. Tinplate is about 18,000 tons and packaging glass is about 28,000 tons. Fibre demand is of the order of 10,000 tons including sisal..... By 1979 it is probably that the above weights will roughly double if steps are not taken by recycle systems and by the application of advanced packaging technology-which means mainly the introduction of advanced packaging education.⁹

From the above quotation a number of things become clear. It is clear that domestic production can be undertaken. However, the resulting packaging materials cannot meet the technical and volume requirements which leads to importing packaging materials. Locally manufactured paper and paperboard are sometimes too weak to withstand the stresses, strain and rigours of printing, conversion and filling. It is in the field

of technical requirements that Pan African Paper Mills at Webuye has so far failed to meet some of the packaging requirements.

For the other materials - glass, plastics and tinplates - no steps have been taken to manufacture them in Kenya. Since their usages in the packaging industry is essential, such materials have to be imported. The importation of packaging materials generates these problems. It means spending the already scarce foreign exchange. It leads to the importation of foreign technology. Both importation of materials and technology may result in undermining and underdevelopment of local resources, manpower and technology.

Many packages find their way to the dustbin, sooner or later. In other words, packages often become useless once the products they contain are finished; or once they completed the duty for which they were initially used. In several cases products have only a short life time which makes the packages short lived. Containers for cooking fat, toothpaste, cigarettes, soaps, sprays, milk and other beverages live for less than a month. One month therefore is the longest life of a container used to pack any of the products mentioned above. The estimated use life of the container is based on the consideration of a family of four persons in Nairobi.

In the case of soap the package is discarded once the product is in use. For toothpaste one of the containers (the carton) is discarded once the product is in use. The flexible metal foil forming the tube persists until the product is finished before it is thrown away. A lady may also use a body perfume. Such a product may be packed in a metal can, glass bottle or plastic bottle. The perfume may last only one week and the container is discarded. That all these packages are simply thrown away makes packaging appear wasteful.

Discarding does not only waste resources but is also apparent source of health hazards. Insects and other organisms are likely to find food remains in the discarded food containers as prominent feeding and breeding grounds. During rain mosquitoes breed in the discarded containers filled with water. These mosquitoes and other insects transmit disease-carrying organisms. To find garbage as a health hazard the Nairobi City Council invests money and other resources in garbage collection. The exact percentage of garbage attributed to packaging in Nairobi is at the moment unknown. However, it appears that a significant percentage of the total city garbage is made up of waste from discarded package. Hence packaging becomes a major contributory factor to health hazard by promoting the lives and multiplication of dangerous organisms, insects and rodents.

Packaging as a source of garbage and consequently a health hazard is only one way that it is a problem. The other way packaging is dangerous is that it may cause poisoning. Poisoning may occur when metal cans are used to pack food. The metals used in the manufacture of the containers are generally alkaline, and the contents generally acidic. A chemical reaction is therefore eminent between the basic metal and acidic foods. The resulting salt or compound may be poisonous. The amount of poison and the degree to which it can poison man depends on the duration and intensity of the chemical reaction. Because of the likely poison, packaging experts find it necessary to group retail food items as below:

On the basis of their effect on food cans, food products may be roughly divided into three main groups.

- (a) Sulphide staining products, such as seeds and legumes.....
- (b) Less aggressive products, such as fruits without anthocyanin products.....
- (c) Aggressive acid products, such as fruits and vegetables with anthocyanin pigments.....10

The packaging experts also find it necessary to recommend the use of lacquers in food packaging.

Through the use of organic lacquers it is hoped a barrier is created between the acidic foods and basic metals. The use of lacquers is then a means for food

preservation during packaging. It preserves the food properties and stops corrosion. The evidence that lacquers are used and the reason for using them is illustrated by the quotation below.

The compositions of the steels used in cans are determined by the needs for strength and corrosion resistance. The coatings further protect the steel from both external and internal corrosion.....

These coatings and linings are used to:

- (1) Preserve certain products characteristics;
- (2) Prevent corrosion of the exterior and interior of the container.....¹¹

Internal corrosion is the equivalence of the chemical reaction between food and metal cans stated earlier. The external corrosion may lead to opening of the container and exposing the contained food to reactions with organisms in the immediate environment. Either way food could be rendered unsuitable for human consumption.

In the area of export trade packaging in Kenya and other developing countries exhibit short-comings. There is lack of information and therefore little knowledge regarding packaging for export purposes. Manufacturers and traders know little about packaging technology, operation and value. It becomes difficult for Kenyans to know where savings (in cost of materials and production) and which designs can achieve the

desired results. It has become difficult to realise where and when substitute materials could be made for the benefits of low cost, local materials, local technology and manpower.

Substantial savings in packaging costs can usually be made through a systematic analysis of the whole packaging process. In this context, the factors that should be considered from the overall point of view are listed below.

- 1 Know your packaging technology.....
- 2 Know your own, total packaging operation.....
- 3 Know your package supplier and his possibilities/ limitations.....12

The total effect of lack of knowledge in packaging and other associated factors leads to costly waste of time, money and other resources. There is, generally, lack of detailed container planning; whether it is for export or domestic consumption. This often leads to costly mistakes in the purchase of materials that may be found later to be unsuitable. Such mistakes can frustrate management and may retard progresss in a factory that manufactures packages.

Lack of product standardisation leads to difficulties in packaging when it comes to export trades. This is particularly so in the case of hand-made articles such as earnings, baskets, dolls and jewellery. Apart from lack of standardisation the products are small in quantity, making industrial packaging uneconomical. The products are also made in the rural areas.

To pack them, they have to be transported to centres. Transportation from the rural areas, through long distance and rough roads, exposes them to breakages. The Kenya External Trade Authority (KETA) agrees damages could be done to handicrafts during transportation and rough handling and that small quantity production is a commercial problem.

The main problems in packaging handicrafts are:

- 1 Most handicrafts are produced in small numbers, making it difficult to buy suitable inexpensive packages.
- 2 Handicrafts mainly come from small producers spread over a wide area, making the first handling rough over long distances.
- 3 It is difficult to change the shapes of handicrafts to suit the packages. Handicrafts are traditional in shape or in the case of carvings there may be limitations of natural shapes.¹³

Though the above quotation is primarily used to demonstrate the problems of export packaging as applied to handicrafts, there is need to comment on the same briefly. First, the title should read, 'The main problems in packaging for handicrafts are:'

This is so because packaging should and is defined as the use of containers. Secondly it should not be necessary to buy packages. Packages should be made to fit the products of handicraft, not the handicraft products made to suit the packages. Anyway, packaging for handicraft, a commodity of great national importance

in terms of national heritage, tourism, foreign exchange earner and social improvement in rural areas, is still rather backwards and receives little attention.

Finally the problems of packaging in Kenya have to do with the industry itself. The industry is too sensitive to changes in the supply of raw materials and other inputs. The quotation below may illustrate the point.

"Packaging Industry in Kenya Depressed"

Eighteen months ago the market for packaging took a sharp dip and, instead of the normal trade cycle expected of it, has remained depressed until the present moment. Packaging industry executives attribute this depression to several factors. Strong amongst them is an extensive destockings operation, a drastic cutback in the orders of manufacturing firms in the face of increasing costs of packaging materials and a drop in their volume sales as demand fell despite optimistic earlier corecasts.....¹⁴

On analysis of the magazine report one finds that the usefulness of the packaging industry in Kenya is underscored. The packaging industry is essential in the distribution of manufactured goods locally or for export. It is therefore seen as part and parcel, apart from sharing the ills and benefits, of manufacturing industries. According to the same magazine report, the following factors make the packaging industry sensitive:

- 1 The use of foreign resources as significant elements in the packaging industry. The

resources are: Materials, technology and manpower. Once Kenya experiences a shortage in foreign exchange the industry experiences shortage of resources and declines in output. Once the foreign resources experience economic problems, such problems reflect on the packaging industry in Kenya.

2 Packaging industries depend on other industries for its success. When such industries experience problems such as loss of sales packaging industries also suffer the same loss.

3 Political situations may also affect packaging industries. The example of Tanzania stopping Kenya's heavy vehicles from using the roads in northern Tanzania to export her goods to Zambia. The former Uganda President Idid Amin discouraged Uganda businessmen from purchasing Kenya's manufactured goods. On both occasions export trade suffered and in the end the packaging industries that depend on export trades also suffered.

It is now clear that while packaging makes a considerable contribution to the success of Kenya's economy, development and social welfare; it generates a number of problems. The problems are probably common to all developing countries and other industries. To

To deal with the problem one could suggest a number of solutions. One is that there is now a real need to train personnel who will deal with the problems of packaging. The trained persons could be University design graduates who are creative and likely to bring about rewarding innovations in the field of packaging. The training programme should equip the students with adequate knowledge in packaging technology, materials and packaging value. Apart from the basically technical courses, they should also be trained in marketing and management. Graduates of the training programme could be employed in Government offices; - the Ministry of Commerce, Industry, Agriculture, Health and the private sector.

The designers who are employed in Kenya External Trade Authority should be given the responsibilities to design packages for export trade. They should also assemble information and advise traders in the field of packaging. Other Government agents should also employ designers and charge them with packaging design responsibilities. The Kenya Bureau of Standards should establish a packaging department that will formulate and enforce regulations pertaining to industrial packaging.

Summary

Packaging in the pre-independence Kenya was a European affair like many other faculties and industries.

Kenya was a colony and its affairs were exploited and conducted for the benefits of foreigners. The coming of political independence in 1963 made very little difference. Since the African in post independence times has inherited Western commercial packaging, he found himself still dependent on the same colonial masters for technical reasons. He had to depend on them for knowledge, supply of materials and technology. The packaging industry is important and useful to Kenya as: An independent industry offering employment; a service industry to other production and manufacturing industries as well as services. It helps to meet national goals.

While it is a useful industry, it has a number of problems, namely: It uses the scarce foreign exchange because some materials have to be imported. It undermines the development of Kenyan resources, in a way, because many of its concepts are alien. It is wasteful and is a potential health hazard as evidenced by municipal garbage collection etc. To combat these problems it may be necessary to train Kenyans in packaging and design. The trained indigenous experts should be charged and trusted with the responsibilities of: exploiting potential local packaging materials and concepts, a possible means of reducing or eliminating waste and garbage.

After stating all these problems that are attributed to modern packaging one thing becomes clear. Modern packaging, in its present setting, does not work in Kenya. It is therefore less relevant to Kenya as compared to traditional packaging. All the same, modern packaging has to continue since Kenya desires the benefits of modern industries and the industries go hand in hand with modern packaging. Of course modern packaging involves modern containers which are supposed to be designed before manufacture. Therefore designers of modern containers are irrelevant to Kenya. The problems of designers is discussed and illustrated further in chapter five. It seems the designers do not adequately consider the Kenya situation during the design process. No doubt, such inadequate considerations lead to improper, inaccurate and inefficient container functions and uses.

FOOTNOTES

- 1 East African Standard, East African Ltd.
1st July, 1958, P8.
- 2 East African Standard, East African Standard Ltd.,
2nd July 1958, P9.
- 3 East African Standard, East African Standard Ltd.,
16 July 1958, P.5.
- 4 East African Standard, East African Standard Ltd.,
16th July 1958, P5.
- 5 Development Plan, 1964-70, Government of Kenya, P1.
- 6 Allen Jones, Development Programme For Packaging
Kenya External Trade Authority, (1974) P2.
- 7 Allen Jones, Development Programme For Packaging
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- 8 Development Plan 1979-1983, Government of Kenya P125.
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Kenya External Trade Authority (KETA) (1974), P2.
- 10 Johan Sellin, Export Packaging Note No. 14,
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International Trade Centre UNCTAD/GATT P1-8.
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- 14 Hilary Ouma, The Weekly Review, Stellascope
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CHAPTER FIVE

THE PROBLEMS OF MODERN PACKAGING DESIGN AND DESIGNERS IN KENYA

The concern in this chapter is the problems of packaging design in Kenya. The chapter focuses attention on the problems of design in general, but with a particular reference to packaging design. Efforts are made to identify, describe and perhaps define these problems. Thereafter possible solutions to the problems are suggested. It is hoped that a more rational or objective means of judging the product of packaging design will emerge.

The Problem of Design Education

It is considered important and relevant to briefly investigate the immediate educational backgrounds of those who eventually turn package designers. Without this it will be hard to understand who designs packages. Understanding the problems of packaging may be harder, inadequate and incomplete. Design education is the beginning of the problems of packaging design.

The training of designers in Kenya has its roots in the national educational system: Primary Schools, Secondary Schools, Technical Schools. It is at secondary and technical schools that students begin to think and take careers more seriously. Therefore, it is at this point that designers begin their professional trip. Let

us deal with secondary schools since the University education draws its student resources from this pool.

In the secondary schools there are two levels, the Kenya Certificate of Education (KCE) and the Kenya Advanced Certificate of Education (KACE). At KCE level the following subjects, directly relevant to design, may be taught to students: Art, Clothing and Textiles, Fashion and Tailoring (Coursework), Wood Technology, Metal Technology, Geometrical and Mechanical Drawing. At KACE level, Art, Clothing and Textiles may be taught to students. It is worth noting that there will be changes at this level of education. The changes will be effective soon, such that students will enter the University education after only four years of secondary education. Anyway, at the moment, there are six years of secondary education before a students enter the University of Nairobi, Moi University and Kenyatta University.

For one to be admitted to the undergraduate course, leading to Bachelor of Arts in Design, University of Nairobi, he must meet the University minimum entrance requirements. Apart from that he must have passed Art with a credit at KCE. The rationale behind the requirement is that Art prepares the student to be creative. Creativity is an essential ingredient in the success of of a course in Design.

The objectives of the course in Art at KCE and KACE levels are:

- 1 To cultivate personal appreciation
- 2 To study and graphically record the results of the study of both artificial and natural phenomena.
- 3 To sharpen the ability of the students to graphically analyse form, structure, colour and pattern.
- 4 To cultivate creativity and encourage originality.
- 5 To introduce and sharpen execution through graphic techniques. (Appendix 2 and 3)

The above objectives may explain why the course in Art is relevant and basic to the design course at the University of Nairobi. It appears the examinations that follow are primarily tests of whether the said objectives are satisfied. The secondary schools training in Art may primarily concern itself with preparing the students to reveal: personal appreciation, graphic representation, creativity, originality and execution. Papers five, six and eight in particular are more directly related to Packaging Design.

It is at the University that professional designers are made. At this level students are trained in various aspects of design covering textiles and graphic designs. Packaging design is taught in the second and third years of the three-year course. The design course is made of the following subjects: Materials, Socio-Economic studies, Design Theory, Ergonomics, Structures, Two-Dimensional Design Studies, Freehand Drawing, Photo/Print Techniques, Typography, Cost Control and Planning, Socio and Cultural Studies, Advertising Design, Signs Symbols and Packaging, Exhibition/Display Design, Product Design - Textiles (Appendix 3).

Before going into the problems of design education proper, it should be understood that: The researcher did not carry out any field research for the postulates and arguments presented here. However, he is a lecturer at the Department of Design in the University of Nairobi. He has an effective teaching experience of about ten years in Design. Packaging Design is one of the courses of his lectures and studio projects. He has also undergone a school education programme similar to KACE.

He went through the British system of education. In that British system of education there were also two levels of secondary education, Ordinary Level and Advanced Level which correspond with KCE and KACE. After the East African countries (Uganda, Tanzania and

and Kenya) gained political independence from Britain the educational system remained closely similar to the British type.

The East African Certificate Education (EACE) was set up after independence to replace the Cambridge School Certificate. However, there were virtually no changes in the content of the course. With the crack and eventual collapse of the East African Community, EACE also disintergrated. Each of the East African Countries formed her own system of secondary education thus KCE and KACE for Kenya. However, the course content has remained very similar to what this investigator underwent.

This investigator also taught, as a guest teacher, students in secondary schools within Nairobi. He has been a member of several committees of the Kenya Institute of Education (KIE) which met to discuss schools' syllabi in Art and Design. He has also had several informal discussion with the relevant officers of the Kenya Government Education Department concerned with Art and Design education at secondary level. Besides, the researcher is an active designer with some outstanding records of achievements in a number of design disciplines. It is therefore reasonable and correct to assume this investigator has adequate background knowledge and experience to advance postulates and arguments of the kind to be found in this chapter. For all the arguments

to make greater sense refer to appendices 2, 3, 4, and 5 of this study.

Design is believed to be a social and cultural affair. Design is for a people. In this respect it is similar to those subjects that are often closely associated with culture. If this is true then the relevance to Kenya of paper seven of both KCE and KACE is questioned. In both cases the papers are primarily concerned with European history of art. Taking that these students will eventually turn designers one can see the European influence taking roots at this stage. Designers are treated to an overdose of European culture in their early training. This means art and design education denies the students an early opportunity to make design a Kenyan affair. If future designers are to use their professional skills for the benefit of Kenya then traditional art and material culture must be introduced and taught to students in secondary schools. European, American, Asian and other art histories could also be taught as a means of preparing students to see relevant similarities and differences between local and outside situations.

Papers five, six and eight of KCE and KACE syllabus are directly related to the course in Bachelor of Arts in Design, University of Nairobi. During his time as a guest teacher, the researcher observed that many of the

teachers know little about design. They are therefore likely to experience difficulties in training students in these papers.

The teachers are employed by the Kenya Teachers Service Commission. At the moment Kenyatta University (KU) is the greatest source of secondary school teachers. A possible solution to this problem may entail looking at the course content in Bachelor of Education with Art at KU. As it is, students are prepared to teach graphics, ceramics, painting, sculpture and textiles. (Appendix 5). Besides they undertake courses in general education which undermine and demean their preparation to teach creative subjects. The graduates therefore lack the relevant knowledge and confidence to teach those courses which relate directly to design.

It may also be necessary and useful to interest and train graduates of B.A. Design or Fine Art to become teachers in secondary schools. Together with teachers who graduate from KU a more competent teaching team may be the result. The other alternative is that KIE could organise short courses in design for the teachers in secondary schools.

It is known that very few schools offer KACE Art and the schools centre around Nairobi. Even then only few students choose to sit examinations in Art and papers that are closely associated with design.

It seems a prominent attitude among students and parents that only when a student is not bright enough in the other subjects does he choose to study Art. The bad spread of schools offering Art and negative attitude contribute significantly to the overall design problems in Kenya. This is because it is impossible to exploit the greater part of the overall national talent potential. The design profession ends up with those who cannot fit elsewhere. In other words it picks from the worst and leftovers.

It is now necessary to improve the negative attitude towards design. Among those who should improve the attitudes are designers who are practicing. The number of art teachers should also be increased so that more secondary schools in the country may offer Art.

Let us now turn to the training of designers proper. At the moment only the University of Nairobi offers an undergraduate course in Design. This is where professional designers and packaging designers are made. At this point of the national education system there is emphasis on either graphic or product design. The course in packaging design starts in the second year of studies, implying that packaging design is simply a two year course. Anyway even at this expectedly mature point of education many students are unconcerned and not serious with the course.

This researcher has experienced situations, during his period of teaching, which may illustrate not only the lack of concern, seriousness and perhaps ignorance among many design students. These are the situations:

- 1 When one asks fresh first year students why they chose to undertake a course in Design, the answer is often, 'I do not know'. This simply means such a student is ignorant about design. Of course he joined the University to learn and the learning will dominantly be about design. So it is only right that he is ignorant about Design which justifies his presence at the University.
- 2 Often students fail to turn up for studio courses without any real reason. While one argue about the absence in a number of ways, lack of interest and concern cannot be discounted completely.
- 3 The senior design students often ignore preproject activities which are extremely essential for searching and general preparation to the understanding of the project problems. So that during presentation the author of the design proposals may fail to raise any

justification for the proposal or to answer why he came up with the specific design. Thus the studio presentation and the design critique processes ("crits") tend to concentrate more on aesthetics and reproduction difficulties rather than intellectual and conceptual approaches. Ignoring projects activities may easily mean lack of enthusiasm; and the general neglect of conceptual approaches.

- 4 It also seems that many students do not know that the studio projects are designed for learning purposes, that the projects are prepared so that they may learn from it. Thus students who find difficulties at one stage of a project may consult the relevant member of the staff. During the consultation many students may ask the member of staff, "What do you want me to do?" Or simply state that, 'Mr. X, I am unable to do your project'. The question or the statements seem to indicate that the student is working for the member of the staff. In itself the attitude, may have a positive side to it, when it is taken to mean the member of the staff sets a high standard which the students try to reach. However, it should be noted that the students work for themselves, they are the ones who are learning more than the member of the staff.

5 On occasions this investigator has had informal discussions with students about, 'Why there should be differences in marks between student A and B or E and F and yet all those students presented sketches which were approved for final execution?'. During such occasions the students seem to express even standards in solutions to a problem. The point is that there is no single and only answer to a problem. Each answer will have several weaknesses and credits. Based on such credits and discredits alternative design proposals are judged and marks awarded accordingly. At the level of senior students one would wish such basic design awareness existed.

It is not surprising since they have already cultivated the false attitude that after all design is not a serious concern. Some have no idea what design is all about. When they join the University they expect to make only beautiful things, fashion and paint pictures. The two false attitudes are strengthened by the attitudes of some lecturers who insist and emphasize on mainly nice appearing results. A relaxed attitude is seen among academic members of staff in teaching theory and studio courses.

To rise in University teaching positions too much

emphasis is placed on academic performance of a lecturer than teaching contribution. This legalises the junior members of the staff to concentrate more on their personal academic achievements. The net result is that very little attention is at times given to teaching of students. The graduates therefore turn out less prepared to face the real truth of the design professionals practice. They are not competent and perhaps falsely orientated.

That apart, the course content is very impressive on paper. On paper there is so much to be done. But in reality very little gets done. Only little is done because there is a grave shortage of academic members of staff, technicians and physical facilities. There is no time to do all that is on paper. A period of three years is too little for the course to be thoroughly completed.

By way of example, the researcher was once involved in a students workload exercise. The aim was to establish how many hours a design student needs to work in the day to complete design projects in time and still spare time for the library. The research revealed that a student must work for at least six hours each day in the week to finish all the assignments given at that time. The six hours a day were spent only on studio based projects. The time for formal lectures, studio courses and written essays were not included.

This means a design student cannot go to sleep until after midnight everyday and for three years of the course! Perhaps this is too tight for an average student. Lack of time frustrates both the students and the lecturers with the effect that nothing is thoroughly done. One therefore finds little time to teach packaging design properly. The same lack of time leads to plagiarism, corruption and copying work from the University library and other sources. To produce, a trully original work may take time, necessary for thinking and systematic working towards a set goal.

The following suggestions, when implemented, could go a long way to improve the training of designers at the University. There is real need to increase the academic establishment in the Department of Design. The increase should enable one member of the staff to teach only one studio course. This would allow the lecturer to concentrate his efforts and may eventually specialise in this field. The University administrative authority should begin to consider the lecturers' teaching contribution as a means of promotion to higher posts. This may encourage lecturers to pay more attention to the teaching of students than otherwise presently done. The course should be made more balanced to emphasize method of design, techniques as well as visual appeal.

Plagiarism of work from any source should be discouraged at all costs. Staff requirements or

development should allow for specialisation. It is hoped that the specialised academicians affect a systematic studio projects and critiques. Such crits should be taken as serious design presentations and learning processes. Preliminary sketches should be encouraged to enforce creativity and check copying designs from books and magazines. Semi-specialisation in the course should be effected now. It is hoped this will allow the students to get more time to work more concentratedly on areas of their interest. The overall training may become more thorough through semi-specialisation and in the end there may be better packaging designers in this country.

Improper Professional Design Practice

The problem of training leads to improper professional practice of design. As was clarified above, the design profession is now lumped with people who think it is a joke. People who are half-baked and rushed out of the University education system. Having worked with some of my past students I proved that the graduates from the University of Nairobi have these shortcomings. Lack of working and professional details regarding packaging design and many other aspects of design. They do not know how to take a brief from the client. This results in shallow briefs, inadequate in starting and finishing a design project with confidence and good results.

To identify the client's problem with such a shallow briefs, inadequate in starting and finishing a design project with confidence and good results. To identify the client's problem with such a shallow briefs is at times impossible. Yet it is hoped that the heart of any design activity is to know and solve a problem.

Here is what is considered a detailed packaging design brief. The proposed brief when applied should: Define the problem, allow for a thorough and relevant collection of essential information, make it possible to generate solutions that may work and make evaluation of the results easier and rational.

PROJECT NUMBER

PROJECT TITLE

CLIENT DATA

Name of company
Postal address
Telecommunication address
Physical address
Size of the company
Contact representative
Contact date
Commissioning date
Completion date

PROJECT DESCRIPTION

Brand name
Common name
Measure
Physical form
Ingredients and %
Colour

PRODUCT FEATURES

General characteristics
Protection needs
User application
Competative feature

PACKAGE DATA

Unit pack
Size and shape
Raw materials
Local graphic obligation
Shipper pack
International graphic obligation.

PRINTING DATA

Method of printing
Printing surface
Number of printing colours
Expected performance of printer

MARKETING DATA

Market (domestic or export)
Market share
Knowledge of market
Performance in the market
Competing brands and products
Market price
Consumer class
Consumer age
Consumer knowledge of the product
Buying habit
Transport and handling
Product dispensing

BASIC DESIGN EMPHASIS

Producer's corporate brand
Product brand name
Product quality or grade
Product related illustration
Housestyle or corporate image

OTHER DESIGN FEATURES

Main instruction language
Subsidiary instruction language

Supporting advertising posters
Supporting newspaper advertisement
T-T advertisement
Direct mail and other printed matters
Store demonstration and display
Product inspection
Package disposal
All texts to be printed.

AUTHORISATION

Client or representative
Designer
Date¹

After a detailed and an adequate briefings as above, it would be necessary to inform the client in writing about: The magnitude of work, extent of responsibilities and costs. Many of the University of Nairobi design graduates are freelance or practicing designers. It seems these category of designers do not know much about costing and extent of either the client or designers responsibilities. The two examples given may serve to shed lights on how to go about charging fees and realising responsibilities.

Fee Categories

There are five categories of fees for professional design services:

- 1 Lump-sum or fixed fees
- 2 Hourly-rate fees
- 3 Percentage fees
- 4 Royalties
- 5 Consultancy and retaining fees²

Lump-sum fees pre-supposes that the designer knows what is involved in packaging design. Therefore how much

time he will take to accomplish a given task and the cost of ancillary services he may require. The estimated cost of pre-project meetings, search, preliminary proposals or sketches and final design. Ancillary services may include drawn illustrations, photography, bromides, type setting and paste up.

Hourly-rate as a basis for estimating design fees is dependable and accurate. It depends on realistic and accurate assessment of the hours it takes to complete the design project. The present hourly rate in Nairobi is about two hundred and fifty shillings (KShs 250). Hourly rate fee is influenced by: Office space rent, experience and efficiency of the designer, size of the design office. Man hours may be accumulated during the following activities: Meetings, travelling, telephones, consultation, correspondence and on the drawing board. The final design fee will also include ancillary services as detailed in the case of lump-sum fee.

Fees based on percentage of total costs is more frequently used by architects, surveyors and valuers. Packaging designers hardly employ this method. However, the method fixes fees based on the percentage of total cost of producing the designed package. The architects, through their professional organisation in this country, charge six percent (6%). Since designers do not have any outstanding professional organisation so far there

is no fixed percentage to go by. Perhaps the quotation below will serve as a guideline.³

Total Cost of Contract	Fee Percentage
£100000 or over	7½% with a minimum of £8000
50000 to 100000	8% " " " " £4500
25000 to 50000	9% " " " " £2500
20000 to 25000	10% " " " " £2200
17000 to 20000	11% " " " " £2040
14000 to 17000	12% " " " " £1820
11000 to 14000	13% " " " " £1540
8000 to 11000	14% " " " " £1200
5000 to 8000	15% " " " " £825
3000 to 5000	16½% " " " " £540

Fees as royalties usually only applies when the designed package is to be sold to the general public in large quantities. It does not apply when the package is an to the sales of a particular product. Here the designer and manufacturer of the pack agree on what percentage of the profits should be paid to the designer. The problem with the method are: It is hard to establish the eventual profits. There are too many aprties interested in sharing the profits. There is often an element of cheating. The designer does not have any proper control of sales so as to be sure about the net profits. Both royalties and consultancy fees work well only when the design office is already well established.

It is a design problem to give the client wrong fees. Wrong or inaccurate fees are design management problems. When the fees are too high the client unnecessarily suffers costs. He may even abstain from design services which means designers would not get jobs.

He may turn to roadside designers and the possible result in that case is a shoddy design. When the fees are too low the design office suffers in that it is underpaid. Continual underpayment may lead to the collapse of a design office.

Specification of responsibilities is one of the purposes of a design brief. Through observations in Nairobi design offices responsibilities may only be assumed to be understood. They are never specified. Without specifying responsibilities it becomes difficult to know who does what and when. In other words it is impossible to programme work progress. This may lead to expensive delays in completing the project at hand. It may also lead to frustrations and financial losses in the event of any misunderstanding. A typical packaging design progress, with areas of client and designer responsibilities specified is given below.

PREPROJECT

Client Responsibilities

- 1 Awareness of problem or need
- 2 Analysis of problem or need
- 3 Definition of problem or need
- 4 Further analysis of problem with specific reference to how design skills might help
- 5 Formulation of design brief and specification of scope of project; covering objective of project, work to be done, budget and deadline for implementation of solution.
- 6 Selection of designer
- 7 Briefing designer
- 8 Agreement, amendments or development of design brief
- 9 Establish design programme (work content and expertise, broken down into stages, with

deadlines, budgets, and required outputs at each stage.

Designer Responsibilities

- 1 Preliminary analysis of client problem and its background, leading to either agreement of the brief, or its development or amendment.
- 2 Establish design programme

THE PROJECT

Client Responsibilities

- 1 Organisation of co-operative support activity
- 2 Monitoring and supervision of projects progress
- 3 Preparation for marketing of prospective design solution
- 4 Establishment of criteria by which proposed solution might be assessed

Designer Responsibilities

- 1 Analysis of client problem in greater detail to provide foundation for design work. In certain instances this might involve complex surveys.
- 2 Devise concept of design solution
- 3 Interpret concept
- 4 Formulate a specific design solution
- 5 Presentation of design solution
- 6 Contribution to the introduction and Implementation of solution

POST PROJECT

Client Responsibilities

- 1 Monitoring of impact (i.e. monitoring response to the reception of solution).
- 2 Evaluation of outcome of the project

Designer Responsibilities

- 1 Evaluation of outcome of project (4)

What is a logical process of packaging design?

How could a designer reach a solution with a reasonable

amount of certainty? Many packaging designers would find these questions difficult to answer. Answering the questions would be hard because the designers do not know a logical approach to packaging design. Already some aspects of the overall logical approach were discussed in the briefing and specification of responsibilities above. It is considered that the two alone are not adequate to produce a working solution to the designer's dilemma. The point is that design is a logical solution to a problem. In the light of this statement, any process of work becomes questionable. It may not be a design exercise. If a designer does not know a design procedure he may not be designing, though he may be working to produce pieces of work that appear similar to design results. The examples below are case studies that may throw light on the practical packaging design process.

AMF LEISURE PRODUCTS

Establishing the Marketing Plan

To keep all these leisure-time bases covered, AMF is organised into product groups that cut across nine areas of different international bowling, bowling products, recreation vehicles, sports products, industrial products, electrical products.....

Forming the Design team

Geared towards expertise in image analysis, brand names, corporate identity, and product and package development, Anspach Grossman Portugal made a design proposal for AMF and won the contract on a competitive bid. AGP's principal group-Russel R Anspach, Eugene J.

Grossman, and Joel B. Portugal - shared in the responsibilities of the project, each bringing to it his own design/marketing knowledge and experience.

The Design Process

Before pencil was put on paper the AGP principals spent some eight weeks analyzing AMF's existing communication techniques, reviewing the company's product lines and channels of distribution, and examining advertising and personal selling efforts. This indepth marketing analysis included personal interviews with client company management, employees, suppliers, customers, competitors and members of the financial community. On-site, in-store photographic surveys were taken, existing forms for visual communication were collected, any emerging trends within the leisure-time products were examined.⁵

When New York's Philips Morris, Inc., decided to produce a new package for its 'Malboro' Cigarettes, it embarked on intensive research programme. Not only the market was extensively examined to find out what cigarettes people want, but also what type of pack. Gueswork was eliminated from design. The new design is based completely on research findings. It was found, for instance, that people like to associate cleanliness with cigarettes, and the package is therefore white. It was found that smokers like a long cigarette, so the design emphasizes the length of the package. It was found, too, that although the present demand is for filters, quality is still of prime importance, a delicate crest has been incorporated onto the package face, to give a prestige effect. These are few of the many considerations that led to the final package designed by Frank Gianninoto.⁶

From the above two quotations one can generalise procedures or steps which when followed may generate design results with a reasonable certainty. The steps together with a detailed brief and proper responsibility specification should produce a co-ordinated and logical procedure of design. They are:-

- 1 Research to establish the nature and magnitude of the problem and what consumers and other parties want.
- 2 Employment of creative techniques to find or generate solutions that satisfy consumer's needs and parameters of the problem.
- 3 Testing the generated solutions as a means of choosing the right and best solution, bearing in mind what people need and the problem parameters.
- 4 The selected solution is executed, test-marketed and modified whenever the need arises.

The problem of evaluation is the other packaging design problem in Kenya. Designers may be best placed to choose a package solution. However, they do not form the final authority who decides which proposed solution may be used. The final decision rests with the client.

Taking in account many clients may not be aware of design and therefore unable to make rational evaluation and judgement, what sometimes get selected is not good. The worst solutions may be selected from the alternative solutions. It is therefore suggested the designer does not present to the client what he considers unreasonable. What happens when the designer himself does not know how to evaluate package proposals? The following are suggestions. A package is considered well designed when among others it;

- 1 protects its content and user
- 2 makes it convenient and easy to use the product
- 3 caters for easy and safe package disposal
- 4 provides for secondary use or reuse
- 5 facilities pleasant displays, both singly and when in a group
- 6 is simple, visible, arresting and easy to read even in poor lights
- 7 makes product stand out from and stand up to competition
- 8 facilitates selection within a product line
- 9 bears image that consumers like, find meaningful and remember quickly and easily
- 10 portrays appropriate product quality and level
- 11 stimulates purchase and therefore facilitates fast stock turnover
- 12 is cheap, does not add unnecessarily to the cost of the product unless absolutely essential
- 13 makes for quick and easy identification of the product, brand name and manufacturer
- 14 it does not contravene regulations

The Problems of Foreign Agencies

So far we have dealt with packaging design problems which is associated with local designers including design graduates from the University of Nairobi. Apart from

freelance designers, there are about five design offices in Nairobi that are run by graduates of the University. The design offices as well as freelance designers participate in designing packages. However, there are several other design agencies, run by non-Kenyans. Most of the foreigners have their professional training and cultural bases in what is commonly referred to as Western Countries: The United States of America, Canada, Europe and Australia.

The problem with foreign designers is the adulteration of Kenya culture. They are expensive and discourage young local entrepreneurs from using design services. Take a typical Kenyan or African product such as porridge. Porridge is often made from millet, sorghum or maize flour. The beverage is drunk cold or hot. Suppose a foreigner were to design a package for such a product. He would have to carry out extensive search to find the most selling product attribute. Even with this wonderful design weapon, it is debatable if such a designer would generate a truly authentic and culturally meaningful result. Perhaps it would be cheaper, more relevant and truthful to engage the services of a Kenyan designer for such a project.

Secondly the foreigners find it convenient and are unnecessarily underdeveloping professional design practice in this country. They are delaying and

frustrating the professional growth of local designers by depriving them of the important and desirable experiences. The evolution of a design philosophy in this country is subsequently squashed. Foreign-run agencies encourage the copying of design thinking and designs from abroad. The net effect is that Kenyanisation, one of the Government policies is made difficult. The nation is deprived of its pride through the unnecessary encouragement of foreign ways of thinking and going about things. In the end packaging design grows in the wrong direction, receives a foreign outlook, is dominated by foreign concepts, lacks the Kenyan based design and is unlikely to facilitate some of Government policies.

This last problem needs a Government deliberate policy to Kenyanise the design profession. There are many enough and qualified Kenyan designers to undertake any packaging design project. Perhaps this will generate culturally more meaningful packages. Packages that are likely to reflect Kenya when used in export trades.

Lack of Design Awareness

It is probable that the majority of Kenyans do not know about design and therefore what they would gain from design services. The following examples may illustrate the point. Whenever someone wants a house he may approach a designer and ask the designer

to draw him a house. Such a designer may not be an architect. Which therefore means whoever is expressing his need to the designer does not know the difference between an architect and other designers. Above all he does not know what design is all about.

It is frequent that this researcher is approached by many people. People who want their portraits done. The average request is, 'Could you draw me please? I want my picture.' This means the people concerned do not know the difference between an artist and designer, who may not be an artist at the same time.

Eventually there are examples concerning packaging design. Often, manufacturers go to printers to have their packages done. Yet the printers may not be manufacturers of packages or even package designers. They may even carry a sample of a printed and manufactured carton to a printer and demand that the same, with minor changes, be done for them to use. Here the consumer concerned is only expressing ignorance about design and most of all regulations about copy rights. Suppose the people in need now get to right places, design offices. Some of the requests are, 'could you draw for me a box for such and such a product please?' Or, 'I want you to make me a box.' Such manner of requests make one very suspicious about the level of design awareness among the general population in Kenya.

Lack of design awareness makes design a difficult exercise. The client may not see the need for a designer, particularly his fees. This may easily lead to the use of backdoor designers. Secondly, the formation of packaging design brief is made ambiguous and evaluation therefore difficult.

The same lack of design awareness often leads to malpractices by manufacturers and proprietors. A container manufacturer who does not see the need for authentic design may simply copy a design and continues to mass produce the same. He may see the need for design. But for fear of cost and rush to make profit at a critical time he may simply reproduce an existing design for personal gains, mostly financial in nature. Copying design is common with packaging graphics - the marking and decoration of container surfaces. In the case of structures most of the containers are produced under licence. Plastic bottles and cups are examples. In this case even the moulds for forming the containers are imported from abroad.

To solve this problem there is no shortcut to education. People should be taught about design and what it has to offer in particular. Education by its nature takes time to be effective. The Department of Design, University of Nairobi, should spearhead the teaching of people about design. Designers themselves

should participate in letting the general population know about design.

Summary

The problems of packaging design lie in:
Inadequate and improper training, dominance by
foreign agencies and lack of design awareness.

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CHAPTER SIX

SUMMARY AND CONCLUSIONS

Origin and Reason for Packaging and Design

Packaging is now understood and taken to be a basic human activity. To fix a specific period when packaging started in the history of man could perhaps be left to the appropriate scholars, like historians and anthropologists. However, during the consumption of liquids, grains and other food products man experienced difficulties. They were the problems of collection, transportation, storage and processing. The solutions to these problems entail the use of containers, thus packaging. At this early time in the history of man, packaging involved primary or primitive containers: fruits, leaves, barks, horns, bones and skins. Before such containers were used they must have been conceived and made. Conception and fabrication were then the early forms of packaging design and production.

Early Packaging Development

Packaging is one of the basic human activity as stated above and verified at the beginning of chapter one. Its development is therefore closely associated with the overall pattern of social development. Packaging serves social needs.

So, as man became more specialised in his social

activities packaging also developed to serve the special social activities. Packaging developed to serve the need of agrarians, hunters, nomads and religion. Packaging design, and production, though not executed by any particular group to serve itself, was in accordance with the needs of the users and environment. Here packaging could be seen as a material culture, an evidence of the type of culture in existence.

In Kenya, packaging development was not left to natural cause and evolution or exploration. The process of colonisation early in the twentieth century was a forceful and explosive dimension to packaging development in this country. The Arabs, Asians and Europeans were the peoples involved in the colonisation of Kenya. The cultural invaders forcefully imposed on Kenyans their forms of packaging which amounted to a forced development or revolution in packaging. The trend of forceful packaging introduction and meek acceptance by Kenyans continued until todate.

Packaging Design

Towards the end of chapter one, packaging design was described as a design activity and defined. It is the creative manipulation of available resources to satisfy a defined aesthetic and functional need. It is essential that the design process is logical, to ensure

that the end result is logical. It is also important the design is well executed to ensure that the result will satisfy the need at hand. In other words the product of design should be a solution to the problem that exists. To design with reasonable certainty, the designers should among others do the following:

- 1 Thoroughly understand the problem he is to solve
- 2 Be creative in defining and solving the problems
- 3 Generate a comprehensive and working brief
- 4 Search widely and intensively for authenticity
- 5 Be closely involved in the production process.

Packaging design entails both structural and surface design. To design one container two different designers may be involved, one designs the structure while the other does the surface. Where two different designers have to work on the same container, there is real need for them to work closely. Those who concern themselves with the structural designs and production are packaging engineers. The surface design is commonly known as packaging graphics.

However, the most dominant consideration in the design of containers for packaging is marketing: Product planning, production, safety, improved sales, large profit margins, competition and advertising. The choice of packaging material and volume or method of production is controlled by the product and the consumer. Design in generating shapes, forms and using colours as well as other graphic elements, is controlled by the needs of of the market and marketing strategies.

There are other considerations in packaging design. There are those of the environment and health. Packaging is also used to reflect the wealth of the society; the example of gift packages and household utensils. The most affluent society consume more expensive products. The corresponding packages are expensively designed and manufactured. The same group of people also use the more expensive household utensils.

Criteria for Judging Packaging Design

Eventually the pack has to be judged good or bad, successful or unsuccessful and so on. It is frequent that the design of the pack is first judged by the designer and the client. Without involving the consumer who may also be the user, such judgement may be erroneous. The most silent, expensive and ruthless packaging judge is the consumer. Ruthless in that he does not have to explain if he refused to buy the product, hence the container. It is of course expensive to produce so many containers that do not sell the product. All the same the following are the suggested criteria for judging packaging design. A package may be successful when it is suitable to:

- 1 User and use conditions
- 2 Product needs
- 3 Marketing needs
- 4 Manufacturer and production conditions
- 5 Aspirations of the proprietor
- 6 Aspirations of the designer

Kenya Traditional Packaging

Unlike modern packaging, traditional packaging evolved and developed with the authentic needs of the majority of Kenyans. Nomads, hunters, agrarians or a combination of two or all of groups form the basic specialisations throughout the country. Each ethnic or tribal group evolved with its own packaging design and therefore containers. The designs were based on their particular needs.

The variety of container forms spells variation in cultural activities between one tribe and the other. Even within one tribe there is still design variation between the different groups. The design and container differences boils down to individual designers. Variety in form whatever the source or reason, bring about richness in appearance, experience and appreciation. Therefore Kenya traditional packaging is rich.

Most of the containers are round yet stable in stance. Round shapes are smooth and harmonious. Once a shape is round, people expect it to roll or be unstable, an experience we gained through contact with balls. However the traditional containers are stable. This contrast from the expected, makes them intriguing. They cause one to wonder why and how things happen. In other words Kenya traditional containers are academically or artistically stimulating.

The common principles among the many Kenya traditional packaging forms are: exploitation of the surrounding packaging materials and local skills. The containers are multipurpose. The packaging is suitable to both users and environment. The container disposal do not cause any pollution or health problems. In other words traditional packaging does not conflict with regulations regarding the environment. The containers are made durable and to be used again and again. The containers are produced using handicraft mode of production. As such they are simple and show much economy of materials. All these principles, common to traditional packaging forms could be adopted by designers of modern containers.

Why adopt the principles? There would be several benefits on this exercise. One, there would be a true marriage between alien and authentic cultures. In this marriage there may be born a true Kenyan design based on both traditional and modern design philosophies. Two the adaptation of traditional packaging design principles would enrich the overall design thinking. Once enriched, design should gain greater opportunities to be more innovative than at present. All truly creative people prefer and strive to be innovative, generate something different from the common ones. In innovation may lie the measure of a successful or otherwise unsuccessful designer. Eventually, the

principles may assist in minimising some of the shortcomings of modern packaging.

Modern Packaging in Kenya

Packaging as we know it in Kenya today probably started at the end of nineteenth century, during the European Industrial Revolution. The Revolution brought out increased wealth among the Europeans. With increased wealth there came the ideas of mass consumption, production transportation, sale and storage. In the end this meant mass packaging so containers had to be produced in mass. To be able to mass-produce containers people and industries specialised in container production. Hence the starting point of packaging specialists and industries. It is probable that it is at this time when packaging design as a special area of design started.

Designers, using their creative talents, brought to packaging a wealth of shapes, forms, colours and other meanings. Container shapes can be loosely grouped as rectangular, square, triangular or round. The forms are mostly rigid, semi-rigid and flexible. It is the rigid or semi-rigid containers that tend to take the shapes specified above. The flexible containers depend on the products or contents for their shapes. One could perhaps say flexible containers have no shapes, shapeless.

The Relevance of Packaging

It was stated above that the independent Kenya Government permitted the African to freely participate in the packaging industry. The implication here is that the Government must have seen the value of packaging to the economic and overall development of this country. Indeed, packaging is relevant to Kenya in that it is an industry in itself. Packaging industry generates employment. Generation of employment is a national concern and aspiration. It is one of the government policies. Here packaging is seen to be a means through which a people's aspiration can be fulfilled and a government policy implemented. Through generating employment packaging provides the means of earning a living, useful and constructive engagement and other social amenities.

Packaging can be used to exploit manpower, fuel, raw materials and natural resources. An aspect of economic development is exploitation of natural resources. The Kenya Government spends money, time and other means to find ways of exploiting natural resources. All is done in the name of economic development. Kenya produces sisal and other fibres that can be basic packaging materials. Kenya produces electricity, some of which can be used in running packaging industries. Paper, colours, printing inks and dyes are all resources

employable in the packaging industry. Kenya has many people with brains that could be used to run and improve the packaging industry. Here, one can say that packaging, through the exploitation of national and natural resources, is a means to economic development.

The other relevance of packaging to Kenya is that it serves other manufacturing, production and service sectors of the national economy. Manufactures of food, chemicals, powders and crystals are kept, transported, distributed and sold in containers. Agricultural products would be greatly wasted during harvest, processing, distribution, and sale without the use of packages. Provision of health care to remote parts of the country would be impossible without containers. Packages are vital in the distribution of drugs which is an important aspect of health care the Kenya Government gives the population in all parts of the country. Manufacturing sector, agriculture and health are all important faculties of the Kenya economy and social welfare. Through their importance to this nation one can see the relevance and significance.

Therefore, packaging is part and parcel of national development. The success of economic development efforts depends on packaging to some extent. In some ways, the demand for packaging is a good scale through which the level of economic development can be measured. When the demand is high then the economy in a country is

healthy. However, when the demand is low then the economic picture is likely to be gloomy. Packaging is a means through which essential services like health care can reach the masses. Packaging indeed is an avenue to successful domestic and export trade. Most of the commercial activities concerning consumer products depend on packaging.

The Problems of Modern Packaging

The persistently dominant use of modern containers spells a number of dangers to this country, Kenya. As stated earlier on, modern packaging is unnecessarily undermining and replacing traditional packaging. Packaging is a socio-culture activity. This means therefore that modern packaging is undercutting and pushing out the true culture of Kenyans.

In the name of being fashionable, modern packaging has been promoted, allowed to dominate and made to excel over traditional packaging. This means imported manpower, materials and technology to go with this particular form of packaging. The implication is one and clear, underdevelopment. National natural resources are forgotten therefore cannot be developed for industrial application. The locals who come into contact with packaging industry late in their lives cannot match the people who originated and control the industry. The experts therefore find easy employment opportunities in the industry, and they may be more efficient.

There are a number of factors which make modern packaging an expensive and a wasteful exercise. First that the inputs are mostly imported, so it becomes expensive on foreign exchange. Yet foreign exchange in Kenya is always in short supply because little of it is earned through exports and even the little has to be shared out between the many national import demands. Packaging may at times increase the cost of a product unnecessarily. Here it makes a product more expensive for the consumers to buy. Most of the modern containers are disposed after which is temporary. The fact that the containers soon and simply find their ways into the dustbin makes modern packaging appear to be expensive and a waste of resources.

Finally modern packaging is a source of health and pollution hazard. Container disposal when left unchecked encourages the thriving of organisms that can be causes of ill-health. They also become unsightly and dirty thus polluting the environment. Modern packaging can therefore work against and may frustrate health and environment pollution regulations. Yet the Kenya Government, other governments and institutions now take pollution issues with primary concerns. It would appear that packaging work against some aspects of government and institutional regulations.

It is possible to reduce the problems or unwanted

side-effects of packaging. First packages should be designed and fabricated for both secondary and reuse purposes. Paperboard packages like those used for toothpastes, soap, detergents and breakfast cereals could be designed for secondary use. The example of primary schools teaching aids. The packages could be designed for the original purpose as well as teaching children about numerals and letters of the alphabet. Tins and plastic cans could bear secondary uses as flower pots and drinking cups. Already the containers are used for these purposes. However, through design, the tins and plastic cans could be made more suitable and proper to the purposes. Above all, the present efforts should be intensified. This way waste and expenses may be reduced. In the end Kenya should embark on the training of local packaging experts. The experts should be charged with the total responsibility of guiding packaging directions.

Dependence of Modern Packaging Industry

Kenya was one of the British colonies in Africa. This historical fact made pre-independence packaging generally a British affair; (see chapter four). At the very least European packaging dominated packaging in Kenya. Kenya eventually gained political independence from Britain in December 1963. The government policies from that time on permitted the Kenya African to directly participate in the packaging industry. However, the

permission turned out to be a matter of theory and paper work. From the time of independence until recently no Africans owned or participated in the packaging industry directly. Even as at present, there are not many Africans who own or take part in the country's packaging industry directly. The few people who may be doing so still find themselves dependent on foreign technology, materials and manpower to manufacture packages. The fact of dependence raises the need for Kenya to embark on the training of local man-power to become packaging experts. Secondly, the trained and local experts should develop local packaging materials. These first two steps could be done soon. Other packaging technologies such as machinery may take long to replace. As such they could remain the long term objectives.

Co-existence: Modern and Traditional Packaging.

In Kenya, as perhaps in other parts of Africa and elsewhere, there are two forms of packaging: traditional and modern packaging forms. The truly Kenya traditional packaging involves the use of container before the Arabs, Asians and Europeans came to Kenya. Such containers as calabashes, gourds, baskets, pots, skin bags and grain stores. These containers are still in use though dominantly in the rural areas. In chapter three it was found that the containers have certain

characteristics. The containers are characterised by: Lack of standardised and precise shapes, dominant use of natural packaging materials for fabrication and handcraft mode of production. The older generation teach their young ones the production skills necessary in making traditional containers. The skills are handed over from one generation to another through many generations. This explains the consistency in design given one Kenya ethnic group. A change in design therefore takes long to occur and be observable after a long period.

Modern packaging forms were introduced by the Arabs, Asians and Europeans. They are characterised by machine mode of production, standardised shapes, colours and sizes. To produce them generally requires man-made packaging materials. The design of modern packaging involves formal training and dynamic changes in appearance, shape, form and size.

Todate the two forms of packaging exist in Kenya. Though the two co-exist, modern packaging is gaining a larger ground over traditional packaging. Actually, modern packaging may in the long run replace traditional packaging. Saucepans, metal and plastic drums, cans, paper and plastic bags and sacks are replacing gourds, pots, baskets and calabashes. Replacement of traditional packaging implies that modern design and industry is

under-cutting traditional design and handicraft. A culture is getting displaced.

The fact of co-existence means traditional and modern have to take from each other, eat each other. Among the Maasai, people now adapt photographic film containers and bottles for snuff-boxes. This is an element of adaptation. However, there is so far no evidence that modern packaging is being replaced by traditional packaging.

The Problems of Modern Packaging Design and Designers

The problems of design in general have their roots in the national educational system. In secondary schools, where designers start to be made, one finds teachers who do not know much about design. This leads to poor or inadequate teaching and learning. The students and their parents have a poor attitude towards design. They consider design to be useless therefore not worthy the time and energy of a good student. The poor attitude stems from the fact that the students and their parents are ignorant about design.

Whatever, the attitude generates a pattern of behaviour which eventually becomes a problem of design. The course in design is often left to those students who are unable to score good grades in other subjects, or studied as a soft option to enable one score good

good grades in other subjects, or studied as a soft option to enable one score good passes at the major examinations, K.A.C.E., K.C.E. Even among those who study the subject, very few students make serious study efforts and therefore gain meaningful knowledge about design. All in all the eventual designers are those who would have been schools dropouts or people who do not care much about making meaning about what they do.

The present course content at K.C.E. and K.A.C.E. levels are such that much emphasis is placed upon foreign art and artists. The emphasis leads to the early indoctrination and pregnancy of pupil designers with foreign design philosophies. As was argued in chapter four, these philosophies may have little bearing on the aspiration of Kenyans.

While the rest of the world may not be aware, we know that there is art and artists in this country. They work in various media including contemporary ones as colours, dyes, pencil and ink. The artists must have their individual ideas and thinking about their work. No doubt there is traditional art based on beliefs and myths. There is no reason why the school syllabi should not include an element of Kenya art. There is indeed no reason why Kenya art should not dominate design education at this level of national

education. Perhaps in this, one would evolve designers with both eyes, the foreign and Kenyan ones. May be students, teachers and parents will see the importance and relevance of design in schools and the nation as a whole.

The actual and professional design education is left until the university or post-secondary level of education. It is at this level that one finds some actual courses in packaging design. At the University of Nairobi for example, students start learning packaging design in the second year of studies. The B.A. Design course at the University of Nairobi is a three-year course. This means the students learn packaging design for two years. There are three hours allocated to the subject in the week. With about thirty-six weeks in the academic year students get about one hundred and eight learning hours in the year, twice as much in the overall period for two years. The course is dominated by packaging graphics because the time allocated is inadequate to cover more aspects of packaging design. Aspects like estimates (costing), production, materials, structures are often left out. More important is that there may be little time to learn about packaging principles that could include traditional packaging principles.

However, one can understand the position of the

University of Nairobi. The Department of Design of the University is basically a Graphic Design Department. Graphic Design was the starting point of the Department. It is therefore bound to be more established than would be other areas of design disciplines. Graphic Design has successfully established itself in Kenya so it is likely to be more popular. Since its inception, the Department of Design has failed, for one reason or another, to establish other areas of design.

Efforts to vary textile design failed and is still dominated by graphics. Textile Design is presently surface design printed on fabrics and that is graphics. Besides the demand for the more specialised designers is not high. A person who practices just packaging design may find it hard if not impossible to successfully run a design office. There is therefore some justifications to spend no more time on packaging design. Packaging design is generally graphic based because of the nature of the establishment.

The graduate from the University of Nairobi form the majority of designers in Kenya. As already stated earlier these are people with shortcomings: academic dwarfs, leisure oriented, negative towards design and professionally badly educated. The designers exhibit improper practices of design. To start with they often do not know how to draw adequate briefs and therefore generate design solutions that are also poor. The

The proposed solutions are inaccurate, do not solve the problem and may be rejected by the client therefore proving to be a waste of time. A good brief is essential to a successful design exercise and results. A good brief means to understand the client's needs, the problem and leading the client to understand that problem. To define the problem in the light of that understanding so that the resulting solutions are actually answers to the problem that even the client knows. A good brief does not necessarily mean accepting and answering all the emotional desire of the client.

These designers also tend to overcharge clients. The running rates in Nairobi is about two hundred and shillings per hour. Assuming that the designer is busy most of the day, he works for six hours in an eight-hour day. He would be earning one thousand and five hundred shillings a day. He would be earning seven thousand and five hundred shillings in a five day week. In a month of four weeks he earns thirty thousand shillings (Kshs. 30,000.00). Supposed it is a small office in a moderately expensive area of town, where the rent, telephone, water may cost seven thousand shillings per month. The three roomed office (each of 10x10 ft) is probably employing a messenger, copy typist and design assistant, all of which may cost five thousand shillings. Suppose materials and other contingencies cost eight thousand shilling in the month, the designer still ends up with ten thousand shillings in the month.

Ten thousand shillings (Kshs. 10,000.00) is still well above the average graduate salaries in this country. This amounts to overcharging clients. Overcharging scare most of the clients away from design services. The net effect is that the clients look for alternative services which may not necessarily be design. This pattern of behaviour is responsible for shoddy packaging designs we often see in Nairobi. The other effect is that design offices tend to experience shortage of work and are often threatened with closure.

Most of the designers work primarily to make money, perhaps the main reason for overcharging. It is perhaps why many of the designers do not worry about proper briefs. What would a brief matter as long as they made money at the end of it all? The urge for money far over shadows the real responsibilities of the designer. The designer is expected to offer a service first and foremost. A designer through his creative trade should help the Kenya Government achieve some of her objectives. The year 1984 is Kenya Export Year. It is certain that packaging design is an important instrument in the efforts to export and sell Kenya goods abroad. It is in such respects that designers would assist the Government achieve some of her objectives. After offering a true and useful service then and only then should money come in. The same urge for money tend to inhibit the development

of design philosophy, what design stands for in this country. Such philosophies are sometime called schools of thought.

Designers have so far failed to form an organised professional body. A body that would look after the interests of design in Kenya and perhaps set up what would amount to professional ethics. The same body could provide some guidelines on how designers should practice and conduct themselves in the trade. In the absence of such a body foul play thrive in design. Foul play such as snatching clients from one another and copying successful pieces of work from each other. There is gross under-utilisation and underpayment of designers particularly in Government offices. To combat all these ills, designers will have to form a professional body. There exists small design groups here and there. However, none of them is forthright enough to speak for and control designers.

Since the design graduates of the University of Nairobi dominate the field of design in Kenya, one can suggest this solution for the above problems. The B.A. Design course should be strengthened to include courses that deal with the practice of design. It was already suggested that there is need to let students learn about philosophies of design. Above all there is need

for designers to form a professional body that will look after the interests and control the practice of design.

There are also foreign design offices in Kenya, run by foreigners. The presence of foreign designers in Kenya, on the surface, would sound like a wonderful multiracial, international, cosmopolitan and cross-bred design situation. Below the apparently wonderful surface there are several problems. Foreign designers are responsible for the underdevelopment of the overall local design situation.

Foreign designers inhibit the development of local designers. To explain is simple. There are limited design job opportunities. Designers have to compete for the jobs. Through participation in jobs a designer may gain the necessary experience to become more and more professional. If foreigners take away some of the opportunities, then local designers do not get enough of what would give them the necessary experiences. That way they, local designers, do not grow as fast and thence tend to be underdeveloped.

The same, foreign designers, tend to promote the copying of ideas from foreign magazines. The point is that the designers are trained outside of Kenya. Their thinking and appreciation are hence alien to Kenya. They tend to promote designs that are not Kenyan. The

designs are those that are copied or corrupted from foreign magazines. The foreign designers tend to get away with this mode of work, be more original and succeed more than the local designers. Somehow, for the sake of a name and financial rewards the local designers simply follow suit.

It is arguable, whether or not foreign design ideas are good. One is tempted to think that foreign ideas bring about the richness of a cross-culture and an international design outlook. After all design as a universal language should not have territorial boundaries. In the end of it all one is bound to ask these pertinent questions. What is it to be international? What is internationalism without the Kenyan contribution? Is there any point in a cross-culture when one of the elements purported to be involved is somehow ignored? Satisfactory answers to these questions may be difficult to get. Therefore the conclusion that foreigners cause the problems of design philosophy and copying.

As far as foreign designers are concerned one would suggest this. There ought to be a deliberate Kenya Government policy to promote local design talent. An aspect of such a policy could be the further training of these local talents and giving to them to culturise design in Kenya.

In the end the other problem of design in Kenya is the lack of design awareness among the general public.

Most Kenyans do not know what design is all about. What is design supposed to do and what does it do? Such basic questions may not meet appropriate answers from the general public. Yet the Department of Design in the University of Nairobi was established and started in 1968. Most people think to paint and draw is to design. To take good photographs is to design. Or to make nice things is in itself Design.

True, design employs a number of skills. Among the many design skills are the abilities to draw, paint, take photographs and make nice or beautiful things. The skills may at times be primary to the process and outcome of design. However, it is impossible for any of the skills to constitute design. Design is a selection, mixture and effective use of the skills. Whatever the selection and mixture the rproduct of design should, among other things, work in harmony with cost, users and environment.

There is now a real need to educate the general population about design. The Department of Design, University of Nairobi, should invite a wider cross-section of the population to the students' end of the year exhibition. Practicing designers should show their work to the public through exhibitions in public places. Through viewing design exhibitions, the general Kenya public may learn about design. Illustrated lectures given to schools and other educational institutions

may also make more people learn about design. Perhaps, more people will be able to know what design is and what it can do.

Areas of Further Studies

The present study cannot be considered to have fully exhausted the scope of the subject, packaging and packaging design in Kenya. There are specific areas of this subject that have been identified in this study for further and detailed investigation. The most important of these may include the following:

1 TRADITIONAL PACKAGING AND PACKAGING DESIGN

This study concentrated on only one example of Kenya nomadic packaging. For a greater insight into the subject it is necessary to study traditional packaging and packaging design in Kenya other parts of Africa and may be elsewhere. The area of study may not app only include nomadic packaging; but also those of agrarians, hunters and sometimes that may indulge in other activities.

2 OTHER TRADITIONAL DESIGNS

Following from the above recommendation it could be suggested that further studies are required in the fields of traditional designs. The studies could be in other fields of traditional designs (apart from packaging design) in Kenya. other African countries.

Such studies may enrich design both for scholarly and professional purposes. The studies may indeed be a step towards identifying and applying Kenyan or African design philosophies to national development goals.

3 INDUSTRIAL PACKAGING DESIGN FOR KENYA

In this study, it was observed that few studies have been conducted in the field of industrial packaging design for Kenya. Some of these studies are available in the Kenya External Trade Authority Library. These works of packaging experts lack the experimental or practical application approach of the designer. The experts merely tended to identify problems and suggest theoretical solutions. However, it could be suggested that a more objective and concerned designer identify and study the problems. After which he could try to advance practical and perhaps more tangible and testable solutions to the problems of industrial packaging for Kenya. The study could also be designed to generate packaging solutions for both domestic and export marketing purposes.

4 ART AND DESIGN EDUCATION

It was also noted in the study that there is something wrong with the schools' syllabi in Art, Crafts and Design. That something seems lacking in the training of school art teachers and designers at both University and College levels of education. It was further observed

that many of the creatively oriented, talented and skilled pupils do not make the grade for University and College education. It is therefore worth suggesting studies to determine the causes of these observations. The studies may also be designed to establish the extent and effects of these shortcomings on design education. Eventually the study may be used to suggest remedies to the observed shortcomings.

5 THE NEED AND ROLE FOR DESIGN

This study also notes that the University of Nairobi embarked on the training of graduate designers since October 1968. It is assumed that there were needs for graduate designers, therefore the reasons for starting the course at the University. Since needs change from time to time, it may now be necessary to redefine and change design direction. A study in this and similar direction is recommended since the findings are fundamental to the very existence of design and associated activities in this country.

APPENDIX 1

SEVEN STEPS TO SUCCESSFUL PACKAGING*

This chart represents a wide cross section of opinions and experience among packagers. The points listed will not all be applicable to any one product, but consideration of each question of each question can eliminate oversight of important items. Many packagers develop a short-form check list tailored to individual circumstances and streamlined to cover only those points that are pertinent to a specific product and its packaging parameters.

Steps 1, 2 and 3 of this chart deals with the planning phases of a package development program. The remaining phases deal with selection and design. There is necessarily some overlapping. In general the arrangement is sequential, but in numerous cases the items are inter-related. For example, certain aspects of container selection will depend on packaging line considerations or vice versa. Balanced planning and numerous compromises or adjustments are essential elements of successful package development program.

STEP 1, PILOTING THE PROGRAM

Package designation

Project or code number

Product new repeat modified

Product is new revised meber of family

design sizes and variation needed will be

Internal Resources

Who will be responsible for package planning

Departments participating in planning and steps assigned:

Executive

Steps 1 — 2 — 3 — 4 — 5 — 6 — 7

Product development

Steps 1 — 2 — 3 — 4 — 5 — 6 — 7

* Source: B.B. Theodore, Modern Packaging Encyclopedia, Mc. Graw-Hill, Inc., (1967) P45-48

Physical forms:

power _____ solid _____ gaseous _____ granular
viscous _____ combination _____ tablet or capsule
liquid _____ other

General characteristics:

particle size _____ corrosive _____ flammable
density _____ toxic _____ abrasive _____ lumpy
or sticky _____ volatile _____ chemically active _____
viscosity _____ perishable _____ fragile _____ other
Approximate value of unit after processing
at retail

Protection Considerations

Essential protective needs:

temperature extremes _____ index of failure
moisture retention _____ index of failure
protection against moisture _____ index of
failure _____ retention of volatiles, flavors _____
index of failure _____ protection against
gases _____ index of failure _____ against light _____
index of failure

Product requires protection from or against:

bacteria _____ corrosion _____ breakage _____
staining _____ mold _____ sifting _____ pilferage _____
adhesives _____ rodents _____ leakage _____ grease or
oil _____ chemical interaction insect is
soilage loss of purity or strength _____
other _____

What special protection is needed for delicate
parts or fine surfaces _____

Must product be able to breathe _____ have access to
light _____ other special environmental conditions

Must seals on package give same protection as
the materials _____

Is reclosure needed to protect unused portion

Use Considerations

Will product and package be compatible during all
conditions of distribution and use _____

Will product be processed in package

Sterilization _____ gassing _____ forming _____ cooking
freezing _____ refrigeration _____ vacuumizing _____ other

Average shelf life needed is _____

Use life needed is _____

Product requires these special package features to protect against injury or hazards to handlers and users _____

Product requires these special package features to assure:

ease of handling

ease of shipment

ease of stocking

ease of use

STEP 2, DETERMING PRODUCT NEEDS

Product Description

Product end use

How merchandised and distributed

Quantity and size of packaged unit

Unit quantity packed _____ dimensions _____ (or cube)

net weight _____ standard shipping _____ quantity

cube _____ net weight

Final Evaluation

Have all vital areas in steps 1-6 been considered

Have all conflicts in respect to package size, appearance, etc. been resolved

Compared with competition: Materials and construction are similar _____ different _____ Sizes are smaller _____ different _____ Colours are similar different _____ Over-all appearance is superior _____ equal _____ inferior _____

Is single unit attractive _____ What is mass.

effect _____ What is probable effect when

displayed with competitive packages _____

Has a final audit of the package (% of maximum or ideal) been made at rate its performance for:

protection _____ retailer convenience _____ producibility

_____ consumer acceptance _____ distributability _____

safety (elimination of known hazards) _____

promotability _____ reliability _____ nondeception _____

over-all rating _____ What provisions have been

made for periodic review and revision of the

package.

STEP 3, SELECTING THE TARGET

The Product _____

Special features are _____

Relative competitive quality is _____

Packages most widely used for this type of product are _____

The Market

Ultimate consumer: age _____ income _____ geographical location _____ socio _____ cultural level _____
export markets _____
special markets are: _____ juvenile _____ senior _____ homemaker _____ special diet _____ do-it-yourself _____ hobby _____ gift or special occasion _____ industrial _____ other _____

Packages that might best serve these markets are _____

Can new outlets or greater market penetration be obtained with: unit-of-use multiple or carry packs _____ bulk sizes _____ one-way packs _____ strip packs _____ second-use or re-use packs _____ aerosols _____ cook-in packs _____ table-service packs _____ dispensing packs _____ gift or novelty packs _____ easy opening packs _____ other _____

Regular channels will be: independants _____ self-service _____ chains _____ mail order _____ house-to-house _____ discount _____ department stores _____ food _____ drug _____ variety _____ other _____

Buying Habits

Standard units of purchase are _____
Storage procedures prior to sale are _____
Should design be for: self _____ counter _____ rack _____ window _____ checkout _____ other _____

Will package most often be seen: at eye level _____ above _____ below _____

What panel will be displayed _____

What are problems of: facings, stacking, racking _____

What point-of-sale support will be given _____

Can shipping package be adapted for display _____

How should package size be adapted: distribution methods _____ consumer habits _____

How might changes in size affect consumer convenience in regard to: economy, frequency of re-purchase, ease of carrying, storing, ease of use

Retail Considerations

What sizes, shapes will be most convenient for distributors _____ for retailers _____
Must package expediate: self-service _____ self-selection _____ quick turnover _____ repeat purchase
Must package be specially designed to meet problems of: pilferage _____ soilage _____ breakage

— reduction of waste — elimination of —
returns — seasonal turnover — tie-ins —
special promotions — adequate shelf life —
quantity of purchase —

Use Factors

Unit sizes most needed by customers are:
Is inspection prior to sale desired —
practical — How best achieved —
Will package handling or use present special
safety problems —
Must package be opened easily — be reclosed
readily — Is captive cap needed —
Must consumer measure out quantity easily,
accurately —
Can dispensing device be provided
Will package disposal be a problem
What re-use of second-use feature might be
desirable
What features, such as hand-grip design, handles,
etc are desirable
What package sizes are most appropriate for
consumer storage
How long must package protect contents to
assure normal use life
What working packages might be used:
aerosol — cook-in pack — water-soluble —
table-service — roll-on dispenser —
squeeze-to-use — dust-gum — maturing —
dispenser — unit-of-use — other —

STEP 4, SELECTING THE PACKAGE

Package Characteristics

Package will be: regular — gift — seasonal —
luxury — other —
Special characteristics — (feeling of thrift,
purity, tradition, etc)
Quantity: initial order — annual — potential —
Specifications required — blueprints —
Samples to be submitted
Structural design will be by —
Primary pack will be: bag — envelope or pouch —
— vacuum or gass — folding — carton —
card back — (blister, skin, other) — wrap —
shrink wrap — set up — box — glass —
metal — plastic — corrugated — capsule —
molded pulp — paper-can or tube — other —
Style of construction
Dealer pack will be —
Shipping package: corrugated — solid —

fibre _____ wooden-shipping sack _____ fibre _____
drum _____ metal pail or drum _____ carboy _____
plastic _____ other _____
Material and style of construction _____
Interior packaging or cushioning _____
Is pallet load, unitized load or containerization
desired _____ what type and size _____
What package modification will be needed for
distribution in the cold temperature
humidity _____ warm temperature _____ high humidity
air shipment _____ export _____ other _____

Closures, Sealing Method, Fastenings

Lid or cap will be: screw type _____ friction _____
pry-off lug _____ temperproof or safety _____
dispenser-applicator _____ rolled-on _____
vacuum _____ other _____
Material will be: metal _____ plastic _____ paper _____
cork _____ rubber _____ other _____
Heat seal will be: direct _____ serrated _____
elliptical lip _____ shear-cut _____ thumb notch _____
high-frequency _____ impulse _____ ultrasonic _____
Adhesive meal will be: dextrin _____
animal _____ synthetic _____
Methanical seal or fastening will be: staples _____
strapping _____ cord _____ other _____

Structural Considerations

Will strength be adequate for intended use
Will package lend itself readily to processes
of fabrication _____ graphic arts _____ Will
package stand up under handling in warehouses,
transportation and retail stores _____ Will it
permit mechanised handling _____ high speed
filling _____ economical filling _____

Performance Checks

Will package provide protection and meet
processing and handling requirements as
specified in Step 2, Item 7: moisture _____
thermal _____ light _____ odor or flavor _____ mold-
or bacteria _____ rodents or insects _____
breakage _____ sifting _____ leaking _____ staining
soilage _____ loss of strength or purity _____
pilferage _____ grease or oil _____ corrosion _____
protection of fragile or delicate parts _____
Does container meet special requirements in

Step 2, Item 9: for breathing— transparency
reseal— compatibility— processing _____
safety — ease of handling _____

Decoration (Cross check Step 5)

How will container be decorated: direct _____
imprint _____ applied label _____
If applied type, will label be spot — wrap _____
round — die-cut — embossed — pressure-
sensitive — removable — permanent _____
semipermanent — other _____

Material will be: paper— foil — metal —
plastic — other _____

Printing will be: letterpress — lithography —
flexography — gravure — screen process _____
other _____

STEP 5, DESIGN CONSIDERATIONS

Identity

Is brand name used — Is it unmistakable in
position — Is symbol or trademark used —
Is it adequately featured — Is manufacturer's
name given due prominence _____
Is the address handle adequately
Is product name featured for quick identity
Are contents clearly and properly stated
Can colour coding be used — Is shape
distinctive

For Information and Attention

Must package carry: mandatory information —
cautionary information — Are there other legal
regulations to be observed — Is this information
properly positioned — legible — (see p. 62)
Are instructions to be used — recipes
serving portions — illustrations
other _____
Are directions legible — easy to understand
Can they be shortened — made more _____
interesting _____
Is a price panel needed — Where is it to be
located — What colours are to be used _____
Are they appropriate for product, retail outlet,
consumer use _____
Does design reflect outstanding qualities of the
product (strength, dignity, reliability, economy,

luxury, value, newness, work saving) — Is it
truly appropriate — Does it reflect _____
manufacturer's integrity, responsibility — Can
it be adapted to reaching special markets:
juvenile — gift or special occasion _____
hobby or special interest — other _____
Does design make adequate use of the space
available _____

Consumer Acceptance

Does package make a pleasant consumer _____
impression: from a distance — from closer
view — on shelf — counter — window —
as a gift _____
Is package newsy — exciting — beautiful —
friendly — What should it be _____
Does it carry a self-selling story — Is —
remembrance value high — Is package a _____
self-sufficient advertising unit _____
Is visibility desirable — opacity — or both
What type of coding would be required
Has all package copy been prepared
Has it been checked for correctness and clarity
Are legibility and emphasis satisfactory
Have copyright and pentable features been checked
for protection — risk of infringement _____
Will the container lend itself to quality control
— good standardization practice — adaptability
to changes in size — changes in surface design
Does container have "personality" — Is it
promotable — Will frequent changes be needed
— If so, how accommodated _____
What steps must be taken ot ascertain dealer _____
Package pretesting — how and by whom _____

STEP 6, PRODUCT HANDLING

Package Line

Will package be fitted on an existing line _____
new line — What line speeds are proposed _____
approximate annual output — Will output be —
continous — intermittent — cyclical _____
Equipment required: filling machine _____
Closing machine — labelling machine _____
other — What machine modification will be _____
needed — What new equipment — Will package _____
be manual — semi-automatic — automatic _____
special — Will packaging require: _____
temperature control — humidity control _____
preconditioning of package materials — special
power facilities — air — lines — water —
lines — static control — other special _____

conditions to provide for safety and/or plus performance

Can services of a contract package be used advantageously

If existing equipment is to be used, will package form, fill, weigh and close satisfactorily

Would change in package permit the use of existing equipment — If new equipments needed, have specifications, sources and delivery dates been arranged

Does this package lend itself to standardization

What will be involved in adapting package to changes in volume — How many operators will be required

Will package impose unusual difficulties of breakage — inspection — control — What occupational hazards will be involved —

Design and Structure

Is container of size and shape to move through packaging line at right speed — Is closure suitable to efficient line operations — Are openings adapted to filling services — Are there suitable label spaces or surfaces —

Will label application present unusual problems — Is design engineered for the greatest shock resistance in machine handling — Does design permit easy storage — handling — stacking — selection —

Production Factors

Does fabrication involve standard, usual methods and equipment

Can packages be shipped and stored readily before delivery to production line

Are sources of service and supply conveniently near

What alternate sources are available

Are materials and containers properly packaged for automatic feed to the line

What problems exist in regard to: preconditioning — quality control — inventory — control —

Packing and Shipping

Can components of the packaging materials be conveniently assembled

Is package of proper weight in relation to bulk container

Can package be shipped in supplier's (incoming) container

Can package be shipped in a display or second-use container

Is there an accepted method for packing product for shipment _____ Can it be used _____ Can package be adapted for group or bulk packaging _____ type pallets _____ What sizes _____

Have packages been cleared in relation to over-all plan of materials handling: in your plant _____ in plants of principal customers _____

Are there any known developments in regard to materials or equipment that might soon be obsolete to the proposed package or methods of filling and handling

STEP 7, AUDITING THE PACKAGE

Basic Economics

Does package use minimal material

Does it comply with standardization practices

What is ratio of container cost to product cost and price

Are they in balance _____ for market _____ for class of product _____ Does price paid for materials assure minimum defects _____ assure normal shelf-life plus margin of safety _____

In weight, size, structure, will package be an economical shipper

Have all sources of supply been checked and listed _____ Will price fluctuate _____ If so, what special provisions will help offset this _____

Legal Considerations

What regulatory bodies _____ local, state, _____ Federal _____ have jurisdiction _____

Is compliance met for contents _____

identity _____

weight or measure _____

safety _____

labeling _____

nondeception _____

F & DA (KBS) approval _____

other _____

Records

What usable records are provided for:
specifications — colour identity — copyright
or other legal aspects — special fabrication
instructions — package research — costs —
sources of supply — other —————

Market research

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Advertising

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Sales

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Art

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Legal

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Traffic

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Production

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Purchasing

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Packaging

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

Other

Steps ————— 1 — 2 — 3 — 4 — 5 — 6 — 7

What schedule of meetings will be needed

External Resources

Outside services that may be required:

- research and development
- packaging materials and construction
- package design
- package production
- package production
- machinery development
- market research
- package testing
- other

Time Elements

Lead time for package development will be

Final deadline will be

Records for this project will include

APPENDIX 2

KENYA CERTIFICATE OF EDUCATION REGULATIONS AND SYLLABUSES 1981*

"Paper I (2½ hours):

Drawing or Painting From Still Life.

The paper offers two alternatives. Candidates may attempt either A or B. They may use any two-dimensional medium or media but must remember that the paper is intended primarily as a test of the candidates' personal appreciation and analysis of form, structure, colour and pattern.

1 Alternative A

A group of objects which may be artificial or natural will be set. The relevant background may form part of the study painted or drawn.

2 Alternative B

A group of man-made objects of an industrial structure will be set.

Paper 2 (2½ hours)

Drawing or Painting from Nature

This paper offers 3 separate alternatives. Candidates may attempt either A or B or C. In all sections the subject may be interpreted freely.

1 Alternative A

The study of the structure of natural forms such as a branch which may include flowers, foliage or fruit, geological forms; bones etc. Candidates are expected to reveal their appreciation and understanding of organic growth or structure of such forms by means of drawing or painting.

2 Alternative B

A subject will be set for drawing or painting out of doors. There should be evidence of direct study from nature but the drawing or painting may include incidental man-made forms.

*Source: Kenya National Examination Council

3 Alternative C

A subject will be set which will require the use of a simple hand lens. The strength of the hand lens should not be less than magnification of 10. The study will similarly be of natural forms and phenomena.

Paper 3 (2½ hours)

Drawing or Painting from a Living Person

The paper offers two alternatives; candidates may attempt either A or B and may use any two-dimensional medium or media.

1 Alternative A

The model (who may be a boy or girl, man or woman) is to be placed in a position which will be described. The whole figure must be drawn. If candidates are satisfied that they have completed their study before the end of the examination period, they may take further drawings or painting on a separate sheet(s) of paper. Additional drawing or painting are optional.

2 Alternative B

Candidates will be required to paint or draw any of the following parts of the human body:

- (i) the head
- (ii) the toes, and
- (iii) the lower limbs

Candidates are advised to sit closer to the model than for Alternative A.

Paper 4 (3 hours)

Original Imaginative Composition in Colour

The paper containing a list of alternative subjects will be given to candidates one week before the examination takes place. Sketches or other notes must not be taken into the examination room. Since this is a test of original work, it would be inappropriate of any form of guidance to be given to candidates other than that printed on the question paper. A variety of themes will be indicating the subject or of specific objects for inclusion in a composition, or in any other form that will stimulate the imagination. Candidates should base their work if possible on scenes which they themselves have observed. Any style or technique, including that which is traditional in the candidates' own country, may be used.

Paper 5 Crafts A (3 hours)

Candidates will be required to attempt any one topic. The subject of this paper is to test the ability to design and carry through any graphic art process. For private candidates the material may be limited to paper, ink, and/or colour. Questions will include some of the following:

- a book jacket
- a page of a book or end paper
- a pictorial poster
- a greetings card, seasonal card, invitation card
- a record sleeve
- a T.V. credit title
- a patterned paper for a specific purpose

Paper 6 Craft B

Candidates must submit at least one and not more than two examples of Craftwork. Which he or she has executed during the proceeding year in any one craft from the following. Further evidence of study in the form of working drawings, small note-books or photographs may also be submitted. Crafts other than those detailed below cannot be accepted.

- (a) Earthenware or stoneware pottery, such as a jug, bowl, dish, vase, or hollowed pottery form, which the candidate either moulded, handbuilt, or thrown on the wheel and decorated if he so wishes.
- (b) Abstract or figurative sculpture, including reliefs. These may be carved, constructed, assembled, cast or modelled in any suitable material(s).

Candidates are warned to submit work in material which is likely to break in transit, clay must always be fired and modelling in plaster must be supported by strong armatures. Schools should bear in mind the difficulties of handling large sculptures, should therefore restrict the size of work to reasonable dimensions.

- (c) Cloth or rug designed and woven by the candidates on the loom for any specified purpose. When possible this should show experience of spinning and dyeing.
- (d) Cotton, wool, silk, bark cloth, or other materials dyed in a pattern as in block printing, so screen-printing, batic, tie and dye etc. The piece should

be at least a square yard in the area.
Blocks should not be sent.

- (e) Embroidary, mosaic, collage or decorative panels, unframed, but simple and suitably mounted, showing evidence of ability to relate design to media.
- (f) Puppet or marionette (including the type used in shadow plays) representing a specified character or person. It is desirable that the puppets should be made in relation to a play, and notes on their particular dramatic use should be included.
- (g) Original relief, intaglio, lithographic screen or montype prints in colour or black and white. The prints should be suitably mounted. Blocks and plates must not be sent.
- (h) The work submitted, must be the unaided work of the candidate. It must be accompanied by a statement from the head of the art teacher of the school to this effect.

Paper 7 (2½ hours) Study of Art

The syllabus is devided into five sections:

- (i) Greek and Roman art;
- (ii) The Italian Renaissance;
- (iii) The Seventeenth Century in Holland;
- (iv) The Nineteenth Century in France and
- (v) West and Central Africa

Three questions will be set from each section. Candidates will be required to attempt any four questions. The paper will cater for those who obtain their knowledge by means of good reproductions or books or may not have had any access to the original work. Candidates will be expected to have some knowledge of the relationship between the different visual arts.

Paper 8 - Coursework

This paper is restricted to schools candidates. Schools wishing ot offer this paper must obtain the prior approval from the Chief Inspector of Schools. Ministry of Higher Education. Schools can then be paired by the Secretary in order that cross moderation can be carried out. The requirements of the paper are as follows:

- 1 Candidates must submit 6 (six) examples of both two and three dimensional work carried out during the examination year.

- 2 The work must be set out in an exhibition. The procedure is that the candidates' teacher will award a mark for each exhibit. The local Moderator will then award a mark in a similar way without having seen the teacher's marking sheet. When the marking is completed, the internal and external examiners will discuss any variations in marks and try to reach an agreement. If this is possible, the Chief Moderator (Examiner) will decide on the mark. (Note: In every case the local moderator will be a teacher from a paired school).

APPENDIX 3

KENYA ADVANCED CERTIFICATE OF EDUCATION REGULATIONS AND SYLLABUSES, 1981*

Paper 1 (3 hours)

Drawing or Painting from Still-Life

A group of objects will be set which will be artificial or natural and may include such things as cut flowers, fruit, vegetables, a growing plant, as well as domestic or other artificial objects: the group may be drawn or painted. The work can be carried out, if the candidate wishes, in relation to the surroundings or the part of the room in which the group is placed. If the group is painted, the background must be included.

Paper 2 (3 hours)

Drawing or Painting from Nature

This paper is divided into two separate sections. Candidates may offer either A or B. In both sections the subject may be interpreted freely.

- A. Study of the Structure of Natural Forms:
Such as a spray or branch which may include flowers: foliage or fruit; fossils; bones, etc. Candidates are expected to reveal their appreciation of natural growth or structure by means of drawing or painting.
- B. A subject will be set for drawing or painting out of doors. There should be evidence of direct study from nature.

Paper 3 (3 hours)

Drawing or Painting from a Living Person

Two alternatives will be given. In alternative A the model (who may be a boy, girl, man or woman) is to be placed in a pose which will be described. The whole figure must be drawn, together with any necessary artificial or natural objects. If the subject is painted, the model must be seen against a suitable background. Clothing should be simple and the limbs exposed as much as possible.

Alternative B will be mainly a study of the head but may include the arms and hands. Candidates should be placed closer to the model than for alternative A.

If candidates consider that they have completed their drawing before the end of the examination period, they may have a separate study. Candidates taking alternative A may choose head, hands or other detail. Those taking alternative B may draw the potrait from another position, or make a study of a part of the head or the hands.

In either A or B the second drawing may be made on the same sheet of paper, or on another sheet which may be attached. Candidates are to be told that the two drawings will be considered together, and that marks will not be lost if a second drawing is not attempted.

Paper 4 (3 hours)

Original Imaginative Composition in Colour

The paper containing a list of alternative subjects will be given to the candidates one week before the examination takes place. Sketches or other notes must not be taken into the examiantion room. Since this is a test of original work, it would be inappropriate for any form of guidance to be given to candiates other than that printed on the question paper. A variety of themes will be set: These may be given in the form of titles indicating the subject or of specified objects for inclusion in a composition, or in any other form that will stimulate the imagination. Candidates should base their work if possible on sciences which they have themselves observed. Any style or technique, including that which is traditional in the candidates' own country, may be used. In KACE, but not in the KCE Examination, one or two traditional subjects will be set for candidates who are accustomed ot work in a non-representational way. These new subjects are being set as an experiment for a limited period.

Paper 5 (3 hours) 'Crafts A'

Candidates will be required to answer any one question. The subject of this paper is to test the ability of candidates in craftwork where the material is restricted to flat paper, ink/or colour. Questions will be set requiring the design and execution of the following: The page pictorial poster; a card, such as Christmas card or invitation card, or emblem; a patterned paper for a specific purpose.

Paper 6 'Crafts B'

This paper is restricted to school candidates. The candidates must submit at least one and not more than two examples of Craftwork which he or she has executed during the school year in any one craft from the following eight categories. Further evidence of study in the form of note books or folders containing working drawing or photographs, and showing the sources of ideas, one of which must be entirely related to the one craft offered, may also be submitted. Crafts other than those detailed below cannot be accepted.

- (a) Earthenware or stone ware pottery, such as jug bowl, dish, vase, or hollowed pottery form, which the candidate has either moulded, hand built, or thrown on the wheel, and decorated if he so wishes.
- (b) Abstract or figurative sculpture, including reliefs. These can be carved, constructed, assembled, cast or modelled in any suitable materials.
- (c) Cloth or rug designed and woven by the candidate on the loom for any specified purpose. When possible this should show experience of spinning and dyeing.
- (d) Cotton, wool, silk, bark-cloth, or other materials dyed in a pattern as in block-printing, screen printing, batic, tie and dye etc.
- (e) Embroidery, mosaic collage or decorative unframed, but simply and suitably mounted showing evidence of ability to relate design to media.
- (f) Puppet or marionette (including the type used in shadow plays) representing a specified character or person. It is desirable that the puppets should be made in relation to a play, and notes on their particular dramatic use should be included.
- (g) Original relief, intaglio, lithographic, screen or monotype prints in colour or black and white.
- (h) Examples of local craft made by the candidate in traditional materials. This should be supported by a second specimen, showing the

candidate's personal development of this same craft, or by a note-book or folder showing sources of ideas or evidence of study of design, techniques etc for this craft.

Paper 7 (3 hours) Historical and Critical

The syllabus is divided into seven sections; each section is related to a special subject and to a special period. Five questions will be set in each section and candidates will be required to answer four questions from any two sections of the paper; at least one question must be answered from each of the two sections. Applications by schools for any special subject of their own choice will be considered; an extra fee will be payable.

It is intended that this arrangement of the syllabus will limit the ground which candidates have to cover, and enable them to reach a fuller understanding of artists and periods of particular importance.

Candidates should be encouraged to study individual works either in the original or from good reproductions. Attention should be paid to the social and historical background appropriate relations to the architecture. Candidates should if possible have a first hand knowledge of at least one English cathedral, but opportunity will be given to answer certain questions from similar knowledge of a large English parish church.

C. The Italian Renaissance

An outline knowledge will be assumed of the development of painting, drawing, sculpture and architecture in Italy from the beginning of the fifteenth to the end of the sixteenth century. A more detailed knowledge will be expected of the life and work of the Florentine and Venetian painters. Candidates should also know something of the aims and outlook of the Renaissance, including the debt of painters, sculptors and architects to classical antiquity.

D. The Dutch seventeenth century with particular reference to Rembrandt

An outline knowledge will be assumed of Dutch painting and its social background throughout the period. A more detailed knowledge will be expected of the life and art of Rembrandt, including development of his style and the relation of his work as a whole to the rest of the Dutch seventeenth-century painting.

E. Painting in Spain and Flanders - 1550-1700

An outline knowledge will be assumed of painting and its historical background in Spain and Flanders during the period. More detailed knowledge will be expected of the lives and work of Greco and Velasquez, Brueghel and Rubens, including the relation of their work to painting in Italy.

F. Painting and Architecture in England, 1700-1780

Candidates should be familiar with the main development of painting and architecture during the period, and its social background. They should be able to answer questions on the Palladian movement and on the lives and work of Chambers and Adam. Questions may be asked which involves detailed knowledge of an outstanding building of the period.

G. French Painting of the nineteenth century

Candidates should have a good general knowledge of the development, style, subject-matter and aims of French painters from Ingres and Delacroix to Cezanne. They should be able to answer the more detailed questions on Impressionanism and the artists connected with that movement.

APPENDIX 4

REGULATIONS AND SYLLABUS FOR B.A. DESIGN*

"FIRST YEAR SYLLABUS"

Ergonomics

Mans' relationship to his physical enviroment. Sensory Perception, Anthropometrics; performance, movement, function, growth. Functioning of the human body in relation to tools and machines, shelter and comfort requirements. Thermal acoustic and lighting considerations.

Materials

Surface of the earth as base for man's structures. Origin and development of the earth. Transformations in surface layers. Water, stones, sands, clays, minerals: Existing and potential sources of raw materials. Structure of materials atomic structure - organic and and inorganic materials. Behaviour of materials relative to various forms of energy.

Form Content Appreciation I

Theory of 20th Century Design (product, graphics, architectural, urban, rural) from its origin in the industrial revolution. Synoptic history of Design to the present day. Critical study and evaluation of works of Art, Achitecture, and Design relative to motivation and Expression, Methods and Techniques. Inforamtion theory. Ideas and Ideologies. Africa and the world.

Social and Cultural Studies I

The nature of culture. Aspects of social and cultural organisations, the individual personality, the family social organisation. Technology, economics, religion, language, myths, (images and symbols in contemporary and past societies). Social and cultural patterns and their changes. Special study of East African Conditions.

*Source: University of Nairobi Calendar 1982-84

Studio and Workshop

2-D Work: Freehand and instrumental drawing, photographic techniques, print techniques. Analysis of elements of visual representation (point, line, plane, colour texture, etc). Synthesis. Composition. Rendering and representation. Charts, maps, flow diagrams, drawing.

3-D Work: Forming technology (separation, joining and adhesion). Finishes. Experimental construction: Organic and inorganic forms. Volume, space, solids and voids.

Elementary Design Problems

Product and/or Architecture with emphasis upon man environment situations and controlled perceptual experiences.

SECOND YEAR SYLLABUS (GRAPHICS)

Form Content Appreciation II

Motivation and Perception. Extensions of perception. Integration of the abstraction process. Imagination. Aesthetics.

Social and Cultural Studies II

Social and cultural patterns and systems in East Africa. New influences in expression and communication. Establishment of international communication systems.

Cost Control Planning

Nature and structure of management. Objectives. Trends and development. Organisation of production. Systems of control costs. Relations of product, production and market. Supply and demand. Pricing, profit and loss.

Design Theory II

Function/Relation Field Interaction. Development and control. Unit/Whole analysis and integration.

Design materials. Design process. Design evaluation.
Communication networks in industrial groups.

Communication II

Organisation of systems. Simulation and control
of systems. Dimension and measure factors. Codes.

2D - Design Studies II (Graphics)

Graphic media. Lettering. Symbol, device and
image. Media of advertising: press display,
television, film and radio. Typographic design.

3D - Design Studies II (Graphic)

Practical study of environment in relation to
2-D and 3-D display. Space control utilization.
Exhibition structures and materials. Display lettering.
Audience control factors. Design for packaging.
Container groups, film packaging, storage considerations.

THIRD YEAR SYLLABUS (GRAPHICS)

Form Content Appreciation III

Advanced study of form and content, contemporary
techniques of book production, cinematography, television,
press advertising and other printed forms.

Social and Cultural Studies III

Advanced study of social and cultural systems
in Africa with particular emphasis upon marketing
methods, past, current and projected.

Design Theory II

Functions/Relation Field Interaction. Development
and control. Unit/Whole analysis and integration.
Design materials. Design process. Design evaluation.
Communication networks in industrial groups.

Communication II

Organisation of systems. Simulation and Control
of systems. Dimension and measure factors. Codes.

2D - Design Studies II (Graphics)

Graphic media. Lettering. Symbol, device and image. Media of advertising: press display, television, film and radio. Typographic design.

3D - Design Studies II (Graphic)

Practical study of environment in relation to 2-D and 3-D display. Space control utilization. Exhibition structures and materials. Display lettering. Audience control factors. Design for packaging. Containers, groups, film packaging, storage considerations.

THIRD YEAR SYLLABUS (GRAPHICS)

Form Content Appreciation III

Advanced study of form and content, contemporary techniques of book production, cinematography, television, press advertising and other printed forms.

Social and Cultural Studies III

Advanced study of social and cultural systems in Africa with particular emphasis upon marketing methods, past, current and projected. Advertising, visual identity programme, interior, fashion, furniture, exhibition, book, magazine and packaging. The general background therefore caters for the nature of design activities the graduates engage in.

However, the semi-specialisation seems to have remained a theoretical statement for sometime now. Since the researcher started lecturing in the department of Design in 1975, the examinations the students sit at the end of the academic years are the same.

iv B.A. in Design

1st Year	Hours
B140 Materials	20
B141 Socio Economic Studies I	60
B142 Design Theory I	90
B143 Ergonomics	38
B144 Structures	38
B145 Two Dimensional Design Studies	300
B146 Three Dimensional Design Studies	120
B147 Free Hand Drawing	180
B148 Photo/Print Techniques I	150
B149 Typography	150

2nd Year	Hours
B240 Design Theory II	90
B241 Cost Control Planning	30
B242 Social & Cultural Studies	30
B243 Advertising Design	120
B244 Signs Symbols & Packaging	120
B245 Free Hand Drawing	120
B246 Exhibition Display Design	90
B247 Typography and Layout	
B248 Photo Print Echniques	90
B249 Product Design (Textiles)	100

3rd Year	Hours
B340 Social and Cultural Studies	30
B341 Design Theory III	90
B342 Advertising Design	120
B343 Signs, Symbols and Packaging	120
B344 Product Design (Textiles)	220
B345 Exhibition Display Design	180
B346 Photo Print Techniques	90
B347 Typography and Layout	120

APPENDIX 5

REGULATIONS AND SYLLABUS FOR B.A. FINE ART*

DEPARTMENT OF FINE ART

1 REGULATIONS

Entry Requirements

Applications should satisfy minimum entry requirements of the University and in so doing offer:

- A. School Certificate or a General Certificate of Education with at least FIVE passes, one of which must be in Art.
- B. (a) Two PRINCIPAL level passes taken at the same sitting of which one must be in Art.
or (b) One PRINCIPAL level pass in Art plus three SUBSIDIARY passes taken at the same sitting. (General paper being counted as subsidiary).
or (c) One PRINCIPAL level pass in Art at 'D' grade or Higher plus two subsidiary passes taken at the same sitting. (General paper being excluded as subsidiary subject).
or (d) Two PRINCIPAL level passes one of which should be in Art, not taken at the same sitting provided that they are both 'C' grade or Higher.
- C. All candidates who elect to join the B.A. (F.A.) degree course (whether their priority of choice in relation to other Faculties is first or not), must submit a folio of art work to the Department of Fine Art for their examination and approval. The Department of Fine Art reserves the right to accept or reject a candidate on the basis of these testimonies of study. The folio must include six specimens in the field of painting and/or sculpture. Photographs of sculpture are acceptable and six drawings in any medium. These samples to be sent to the Department of Fine Art not later than March 30th of the year during which admission is sought.

*Source: University of Nairobi Calendar 1982-84

2 COURSE OF STUDIES AND EXAMINATIONS

FIRST YEAR - Basic Studies Course:

This course is designed to inculcate a keen sense of perception and an ability to analyse and criticise. It will give a student a general intellectual and cultural background at the same time as introduces two-dimensional and three dimensional design studies.

LECTURE SUBJECTS

Ergonomics	1x2	hour	paper
Materials I	1x2	"	"
Form Content Appreciation I	1x3	"	"
Social & Culture Studies I	1x3	"	"
Communication I	1x2	"	"
Studio and Workshop	1x14	hour	prac. exam.
2-D Design Studies	1x14	"	" "
Photographic/Print Tech.	1x14	"	" "
3-D Design Studies	1x14	"	" "
Workshop Tech.	1x14	"	" "

SECOND YEAR - Basic Studies Course

Materials II	1x3	hour	paper
Form Content Appreciation II	1x3	"	"
Social & Culture Studies II	1x3	"	"
Drawing I	2x6	hour	prac exam
Photographic/Print Tech. II	1x12	hour	prac exam

Specialization starts during this year, two subjects are taken, one at Major level and a second at Subsidiary level as shown at the end of third year Basic Course.

THIRD YEAR - Basic Studies Course

Form Content Appreciation III	1x3	hour	paper
Social and Cultural Studies III	1x3	hour	paper
(Art in Africa) - Drawing III	1x7	hr.	prac exam

SPECIALIZATION

Specialization shall be only in one of those main subjects offered by the Department of Fine Art. Study in a specialist subject shall take up to 2/3 of the total study time in the second and third year.

Currently Specialist subjects are:

Painting - Year II

Specialist level - Presentation of Folio of Work

Specialist level - 2x6 days practical exam.

Painting - Year III

Specialist level - Presentation of Major projects with extensive supporting studies.

Subsidiary level - Presentation of work including at least one specific project carried out during 2nd and 3rd years.

Sculpture - Year II

Specialist level - Presentation of specimens of work

Subsidiary level - 2x10 days prac exam

Sculpture III

Specialist level - Presentation of major work with extensive supporting studies.

Subsidiary level - Presentation of work including at least one specific project carried out during 2nd and 3rd years.

Subsidiary subjects shall be one subject taken from the list below and shall take up 1/3 of the total study time in the 2nd and 3rd years.

Currently selection shall be made from the following special optional subjects as outlined in detail in the current edition of the calendar.

The areas of:

Painting	2x6 days prac. exam.
Sculpture	2x10 " " "
Graphic Design	Presentation of Folio of work
Product Design	Presentation of Folio of work.

APPENDIX 6

THE FOOD, DRUGS AND CHEMICAL SUBSTANCES ACT*

- 10 (1) Every utensil and equipment used in a food plant shall be
- (a) suitable for their intended use;
 - (b) so designed and of such materials and workmanship as to be adequately cleanable; and
 - (c) properly maintained
- (2) Every food contact surface shall be
- (a) smooth and free from pits, crevices and loose scale;
 - (b) non-toxic;
 - (c) capable for withstanding repeated cleaning, disinfection and sanitizing; and
 - (d) non-absorbent, unless the nature of a particular and otherwise acceptable process renders the use of an absorbent surface such as wood necessary.
- (3) The design, construction and use of the utensils and equipment referred to in paragraph (1) of this regulation shall be such as to prevent the contamination of food by lubricants, fuel, metal fragments, contaminated water, or any other contaminants.
- 3 (1) Every person who owns, operates or is in charge of a food plant shall ensure that
- (a) all utensils and food contact surfaces or equipment are cleaned;
 - (b) single service articles are stored in appropriate containers and handled, dispensed, used and disposed off in a manner that prevents contamination of food and food contact surfaces;
 - (c) all utensils and the equipment used in the plant are cleaned and sanitized prior to use to prevent contamination of food products by micro-biological organisms; except that where such utensils and equipment are used in a continuous operation, the contact surfaces of the

*Source: Kenya Gazette Supplement No. 40, 1978.

- utensils and equipment shall be cleaned and sanitized on a predetermined schedule using adequate methods; and
- (d) sanitizing agents used in the plant are effective and safe.
- 3 No person shall sell a manufactured, processed or prepacked food, unless a label has been affixed or applied to that food.
- 4 The label to a food shall carry
- (a) on the main panel
 - (i) the brand or trade name of that food (if any)
 - (ii) the common name of the food
 - (iii) in close proximity to the common name, a correct declaration of the net contents in terms of weight, volume or number in accordance with the usual practice in describing the food;
 - (b) grouped together on any panel
 - (i) a declaration by name of any preservatives used in the food;
 - (ii) a declaration of permitted food colour added to the food;
 - (iii) a declaration of any artificial or imitation flavouring preparation added to the food;
 - (iv) in the case of food consisting of more than one ingredient, a complete list of their acceptable common names in descending order of their proportions, unless the quantity of each is stated in terms of percentages of proportionate compositions; and
 - (v) any other statement required under the provision of these Regulations to be declared on the label;
 - (c) on any panel, the name and address of the manufacturer, packer or distributor of the food.
- 5 Notwithstanding regulation 4 of these Regulations the information required to appear on the label shall not be placed at the bottom of any food container.
- 6 For the purposes of regulation 7 of the Food, Drugs and Chemical Substances (General) Regulations, 1978, and regulation 4(a) of these Regulations.

- (d) vinegar, except spirit vinegar or blends containing spirit vinegar;
- (e) wine; and
- (f) soft drinks

13 Notwithstanding the provisions of regulation 4 (b) (i), it shall not be necessary to indicate the presence of sulphurous acids, including salts thereof in, or upon the label of:

- (a) glucose;
- (b) glucose solids;
- (c) syrup;
- (d) confectionery;
- (e) malt liquor;
- (f) wine; and
- (g) soft drinks

14 Notwithstanding the provisions of regulation 4 (b) (iii) it shall not be necessary to indicate the presence of added artificial or limitation flavouring preparations on label of liqueurs and alcoholic beverages.

15 Where a statement or claim implying a special dietary use is made on the label of, or in any advertisement for, any food the label shall carry a statement of the type of diet for which the food is recommended.

16 A food containing saccharin or its salts shall carry on the label a statement to the effect that it contains (naming the synthetic sweetener) a non-nutritive artificial sweetener.

- (a) a common name consisting of more than one word shall be deemed to be clearly and prominently displayed on the main panel of the label if each word, other than articles, conjunctions or prepositions, is in identical type and identically displayed; and
- (b) a declaration of net contents including each numeral in any indicated fraction on a package of food shall be deemed to be clearly and prominently displayed thereon if it is in bold face type.

- 7 Regulation 7 of the Food, Drugs and Chemical substances (General) Regulations, 1978, and regulation 4 (a) of these Regulations shall not apply to the position or size of the declaration of net contents on the label of the food packed in glass containers on which the declaration appears twice on the shoulder or upper part of the container in block lettering or to the containers of alcoholic beverages and soft drinks.
- 8 Where both the inner and outer labels are used on a package of food, the label declarations are required by these Regulations to appear thereon shall appear on both on the inner and outer labels.
- 9 No direct or indirect references to the Act or to these Regulations shall be made upon any label of, or in any advertisement for, a food unless the reference is a specific requirement of the Act or these Regulations.
- 10 Regulations 3 and 4 of these Regulations shall not apply to the food sold in bulk or packaged from bulk at the place where the food is retailed.
- 11 For the purposes of regulation 4(b) (iv), a name set out in column 2 of Part 2 of the First Schedule to these Regulations is the acceptable common name for the food set out in column 3 thereof in relation to the same item.
- 12 Notwithstanding the provision of regulation 4(b) (ii), it shall not be necessary to indicate the presence of caramel as a food colour on the label in:
 - (a) non-excisable fermented beverages;
 - (b) sauces;
 - (c) spiritous liquors;

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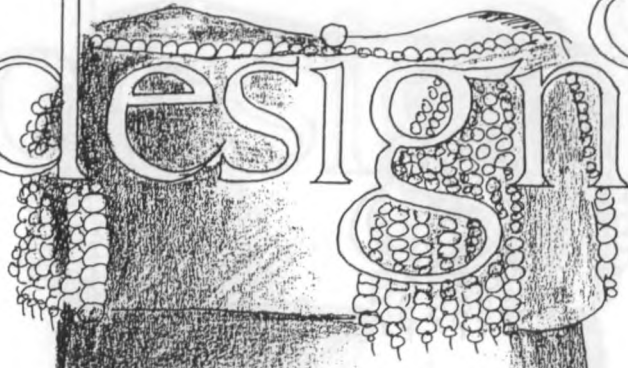
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