

**DESIGN AND CONSTRUCTION OF MODEL
PACKAGES FOR SELECTED GHANAIAN
CERAMIC WARES**

By

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**DEPARTMENT OF ART EDUCATION
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
KUMASI-GHANA**

JULY 2003

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PACKAGES FOR SELECTED GHANAIAN
CERAMIC WARES**

**A Project Report Presented to the School of Graduate Studies
Kwame Nkrumah University of Science and Technology,
Kumasi in Partial Fulfilment and Requirement for
The Degree of Master of Arts in Art Education**

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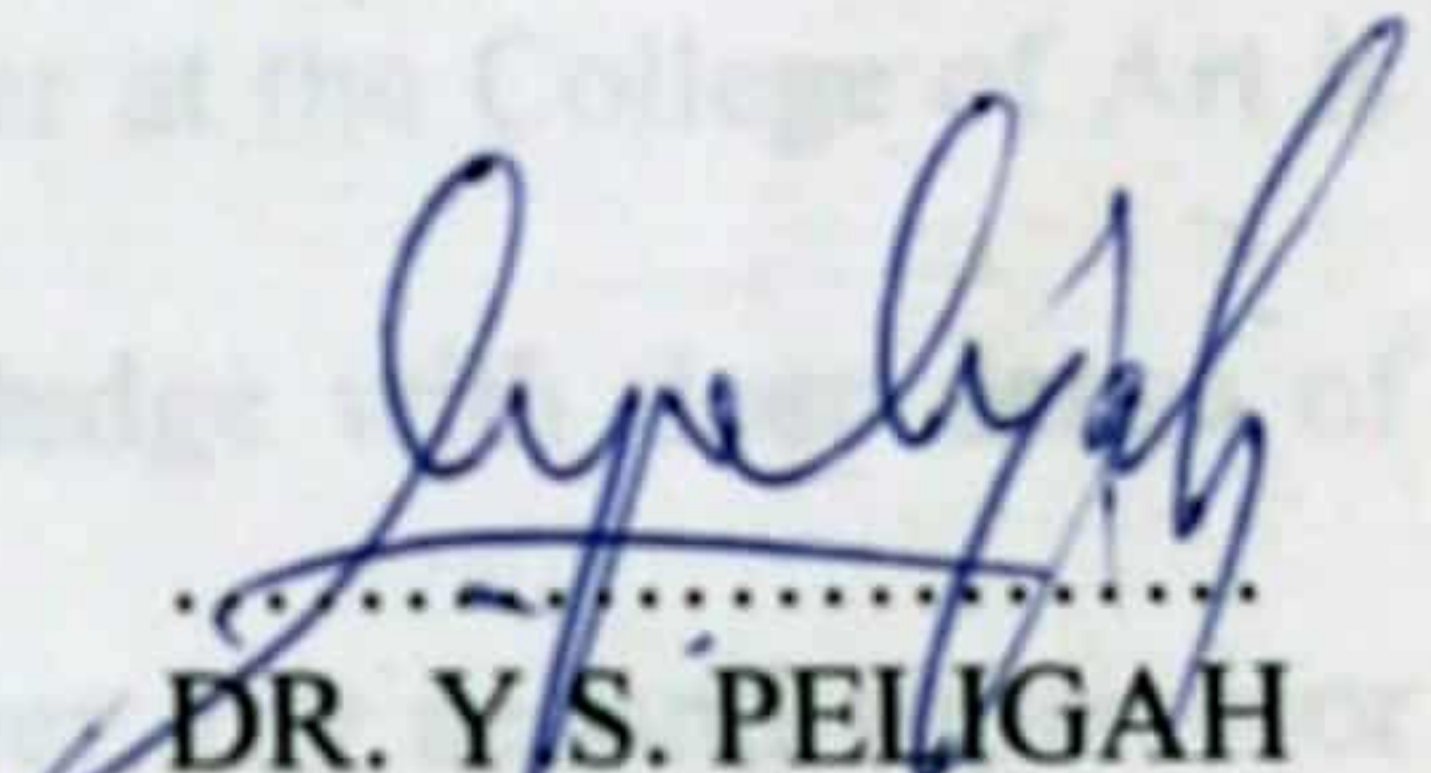
I am very grateful to the Almighty God and some individuals, groups and institutions for their various contributions towards the completion of this project.

CERTIFICATION

My special thanks go to my project supervisor Dr. Y.S. Peligah, a Senior Lecturer of the Department of Art Education for the pains he took in reading through the script and offering useful suggestions and prompting me at every minor mistake to make this project a reality. I also wish to thank the entire staff of the Art

This is to certify that the project report is the candidate's own account.

I am thankful to Mr. Ockampah-Bartel for his useful suggestions and guidance in the initial stages as well as Nana Yaw Gyapong both of University of Education Winneba. Mr. K.G. deCraft Johnson a lecturer at the College of Art was not left out for his useful information. I also acknowledge with great gratitude the guidance and suggestions of Mrs. J.J. Sule who despite her tight schedule, made time to read over the script and offer valuable suggestions. Mr. Nimo Agyemang of Ghana Standards Board and Dr. Tano Dedeah of Department of Food Science, Legon who referred some literature on this project are not left out.


DR. Y.S. PELIGAH
(SUPERVISOR)

My thanks also go to S.K. Agyemang of College of Art who took time to take me through the Computer Graphics in doing out this project. I would like to thank my colleagues especially Hon. B.J. Sebbah, Eric Kwadwo Amisah and my fiancée Paulina Aggrey through whose encouragement and moral support I was able to complete this project.

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July 2003

JKG

ABSTRACT

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TITLE : Design and Construction of Model Packages for Selected Ghanaian Ceramic Wares

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The project deals with the lack of packaging for local ceramic industry as well as for export. Ghanaian ceramic wares are nicely produced to compete with foreign products on the open market. Although they do compete favourably, the quality of their presentation are not the same or comparable to the foreign products in terms of packaging. Locally made ceramic wares are sold in the shops and on the open market without packages, although packages are made for the foreign products. The most common ones are bowls, mugs, flower vases etc. Like all fragile commercial products, Ghanaian ceramic wares need special packages to protect them against breakages and damages. However there are no standardized packages for such products in the country, therefore there is the need to produce sample prototype packages for selected Ghanaian Ceramic wares.

Literature related to the topic was reviewed in the second chapter. Chapter three addressed General procedures required for packaging, which include observance of international quality standard, information on transportation, language,

typography, colour brand names. Tools, materials and equipments used for the project, the construction of the pack, the designing of the label and finally the summary, conclusion and recommendation were discussed.

The main finding was that there are no packages for locally produced ceramic wares in Ghana. It is recommended that ceramic producers in Ghana employ the services of qualified packaging designers to produce packages for their products and also to advise them on any packaging problems.

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JKG

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Ceramic wares are articles made with clay and fired at a higher temperature. They are further glazed to be made more permanent and non-porous. Such wares include mugs, (cups) casseroles (bowls and pots) and vases, which are all classified as crockery items. The other products are sanitary, architectural, medical, technical and ceramic sculpture. They are manufactured in various studios all over the country before being transported to the sale points. In the course of transportation a lot of these wares get damaged before they reach their final destination, which is the shelf in the shops and customers' kitchen wardrobes and living rooms. The major problem associated with this industry, which all stakeholders admit is the risk of breakages that can occur at any point in the process.

As the product is a subsystem of marketing so is its package an important part of product totality. One design expert goes so far as to pose the question, is the package more important than the product? In response to this question Marshall McLuhan answers that:

"a product can become so popular that it saturates the mind of public and becomes invisible. It is often necessary to give the product a new environment – a new package"

to make the content visible again".¹

It is fair to state that packaging is important to the marketing success of most consumer products. The package is included in the consumer's broad conception of a product when the consumer thinks of a product; his mental image is often that of its container. We say "clothes make the man; what we mean is that we often base our judgement of a person on his appearance. By the same token products are often judged by their packages and also as an attractive package starts the product on its way toward purchase, there is the need to design and construct packages for such wares to compete favourably with the foreign products on the Ghanaian market.

1.2 The Problem

Ghanaian ceramic wares are nicely produced to compete well with foreign products on the open market. Although they do compete, the quality of their presentation is often poor and not comparable to the foreign products in terms of packaging.

Locally made ceramic wares are sold in the shops and on the open market without packages, however, the foreign ceramic products arrive in attractive packages. The most common ones are bowls, mugs, flower vases, milk jugs, sugar bowls, etc. Products remain in higher quality and last longer when kept safely in packages.

Like all fragile commercial products, Ghanaian ceramic wares need special packages to protect them against breakages and damages. However there are no

standardised packages for such products in the country, therefore there is the need to produce sample prototype packages for selected Ghanaian ceramic wares.

1.3 Objectives

1. To identify the various types of ceramic wares on the Ghanaian markets and the types of packaging provided if any.
2. To investigate the effect of non-packaging of ceramic wares on the prospective consumers.
3. To design and produce sample prototype packages for selected Ghanaian ceramic wares.
4. To provide an illustrated report on the project.

1.4 Hypothesis

1. If appropriate packages are designed and produced for Ghanaian ceramic products; they may be able to compete more effectively with the foreign products.
2. It is possible to design and produce attractive and durable prototype packages for ceramic wares in Ghana.

1.5 Delimitation

The project is limited to only the packaging of selected Ghanaian ceramic wares namely, mugs, flower vase, bowls – sugar bowl and milk jug.

1.6 Research Methodology

To gather enough information on the project, the experimental and descriptive research methods were used. The experimental research seeks to describe what will "be" when certain variable relationship in a setting are carefully manipulated. The researcher visited various ceramic studios in Winneba and Saltpond to find out how the final products reach the customer as well as the few packaging firms in the country. It was realised that there were no unit packages for ceramic products.

The descriptive research employed, describes and interprets "what exists" with respect to variables or conditions in a situation with reference to this project that the descriptive method employed will describe step by step approach to the production of the package. The researcher deemed it necessary to use both experimental and descriptive method of research to acquire a more meaningful result for the project. Research tools applied for the project were personal interviews and observation.

1.7 Definition of terms

1. biodegradable : that which is able to decay naturally and harmlessly.
2. bleed : spread from one area

3. casserole : glazed earthenware bowls.
4. containerization : a large standard size metal box for transport.
5. crockery : baked clay cups, plates, bowls used to serve food and drinks
6. dray : low flat vehicle pulled by horses and used in the past for carrying heavy load. E.g. barrels of beer.
7. monochrome : tints and shades of one colour.
8. pack : a short form of packaged.
9. package : an object, device, or group of objects that have been wrapped up together in fabric such as foil, paper, cardboard, can, etc.
10. packaging : a collective term for all kinds of containers in which goods are packed from the point of production to the ultimate consumer.
11. palletization : a low platform used to stack or accumulate a number of smaller units of a product.
12. scoring : pressing paper with bone folder so that it will fold more easily.

1.8 Abbreviation

ISO : International Standard Organization

UNECE : United Nations Economic Commission for Europe

OCED : The Organization for Economic Co-operation and
Development

EEC : European Economic Community

KNUST : Kwame Nkrumah University of Science and Technology

UCEW : University College of Education of Winneba.

ibid : (ibidem) it refers to the author of a book mentioned or cited,
without an intervening reference.

opcit : (opere citato) refers to a reference made earlier after which
other different authors have been quoted.

et. al : (et alibi) and others

etc. : (etcetera) and so forth, and others.

M.A. : Master of Arts

Ph.D : Doctor of Philosophy

GSB : Ghana Standards Board

EPA : Environmental Protection Agency

GEPC : Ghana Export Promotion Council

1.9 Assumption

It is assumed that packaging materials are limited in supply and expensive thereby making producers fear additional cost.

1.10 Importance of the study

1. The study will identify the various types of ceramic wares in Ghana and their packaging if any.
2. The design and construction of the prototype package will protect the product on transit and display in store without being damaged, if producers adopt this move.
3. The design will also attract consumers to patronize Ghanaian ceramic wares.
4. The project report will serve as a document and reference material on ceramic packaging.

1.11 Organization of the rest of the text

Chapter two dealt with the review of related literature. It presents written evidence on packages and packaging as related to this project. Relevant information on the nature and need for packaging, functions of packages, types of packaging, modern packaging materials and finally the types of ceramic wares were also reviewed. Chapter three was devoted to the general procedure for the project. It involves factors that were considered before work started; observance of international quality standards; marking for package identification; reference information on transport and language that should be shown on a package and the appearance of a package.

The construction of the pack with a cardboard and the designing of the label with a computer were fully discussed in chapter four.

Chapter five deals with summary, conclusion and recommendations, and a Bibliography of all the references are listed at the end of the project in alphabetical order.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Ghanaian ceramic wares are produced and sold to the public without any packaging. All the products have no packages as compared to the imported foreign ceramic products. The wares include casseroles (bowls, set of flat plates etc) mugs or cups and vases just to mention a few. Like all fragile products Ghanaian ceramic wares need good packages to protect them against breakages and damages. A lot of these wares are destroyed in transit from the factory to the shop and finally to the home of the consumer. Since good packaging reduces the losses through breakages during transportation, distribution and retailing as well as enhances the beauty of the product to attract customers and to be more competitive with other products selling around similar prices, there is the need to embark on such project.

The packaging scene has changed considerably over the years. In Ghana, many products were not packed until the point of sale when they were simply put into a bag or wrapped in paper by the shopkeepers. Packaging was also regarded as part of the production process, which only added to the cost of manufacturing. Today packaging is involved in every aspect of the production process of many Ghanaian products. This involves initial development and adaptation to market requirements, production handling, protection, storage, transportation, distribution, advertising, sales and final use.

2.2 Packaging defined

It is not easy to define packaging. Myriads of definitions have been given to packaging by various authorities including the following:

Richard Dorf et al (1994:332) simply defined packaging as:

“that material, form or vessel that contains a product “.1

For instance, a corrugated box and foam, cushioning that contains a soft drink may be considered packages.

The Cambridge International Dictionary of English (1995:1016) also defines packaging as:

“the material in which objects are wrapped before being sold”. 2

This definition like the first one seems general and includes the process of packing goods. It also implies that anything, which is used to wrap up any object, is termed as packaging.

Ockumpah Bortei (1991:7) in his unpublished thesis quoted Davis Alex as saying:

“packaging is a collective term for all kinds of containers in which goods are packed for sale to the consumer”. 3

This definition falls short of a comprehensive meaning of packaging, in that Davis looks at packaging in terms of sales promotion and limits the scope to only containers used in the process of buying and selling excluding containers intended for transit or for storage. It also limits packaging to "kinds of containers" leaving out other activities involved in packaging.

A formal definition of package as proposed by the institute of packaging professionals is quoted by Raper and Ming-Ren Sun (1994:322) as follows:

"the enclosure of products, items or packages in wrap, pouch, bag, box, cup, tray, can, tube, bottle or other container form to perform one or more of the following functions; containment for handling, transportation and use: preservation and protection of the contents for required shelf and use life and sometimes protection of the external environment from any hazards of contact with contents, identification of contents, quantity, quality and manufacturer – usually by means of printing, decoration, labelling, package shape or transparency; facilitate dispensing and use. If the device or container performs one or more of these functions, it is a package".⁴

As this formal definition shows, many different materials, structures and forms may be considered as the package. The artistic aspect of packaging in the form of labelling and decoration are inclusive in this all-embracing definition.

To Hanlon (1971:6) in his handbook of package engineering, packaging means many things to many people and a very difficult concept to describe and define. However he attempted a definition of packaging as:

"packaging has many faces. In its more familiar forms it is the box on the grocers' shelf and a wrapper on a candy bar.

It can also be the crate around a machine or a bulk container for chemicals".⁵

He continues to say that,

"....it is art and science, it is materials and equipment. It is protection, promotion, law, logistics, manufacturing and materials handling all rolled into one".⁶

The first part of Hanlon's definition shares the same views of Davis and Min-Ren-Sun. The second part of Hanlon's assertion that packaging is art and science is true. It is art because the final touch of a good package is well decorated to attract and it is a science because packages are made to protect the product against extraneous agents especially food packages.

A working definition of package therefore is a structure designed to contain a product in order:

- a) to make it easier and safer to transport
- b) to protect the product against contamination or loss.
- c) To protect the product against damage or degradation.
- d) To provide a convenient means for dispensing the product.

The addition of printing or decoration to the exterior of the package serves:

- a) to identify the contents as to type and quantity;
- b) to identify the manufacturer
- c) to attract the buyers attention
- d) to persuade the buyer to purchase
- e) to instruct the purchaser on how to use the product.

2.3 Functions of Packaging

The need for packaging is pertinent in manufacturing systems. Richard Dorf et.al. (1994:331) say that:

"there is an interconnected relationship between the manufacturing system and the packaging system and that upon manufacture of a product and a package a necessary "marriage" or bonding between the two occurs".⁷

Of course the need for a package is dictated by the manufacture of a product. The strength of the relationship or the degree of bonding that may occur and, consequently, both the particular product that is manufactured and the competitors on the market heavily influence the degree of emphasis placed on packaging systems in a company or organisation. For example, an Industry or a company that produces heavy parts such as electric motors may look at packaging only as containment vessel such as corrugated box. On the other extreme, industries such as consumer foods and products, pharmaceuticals, beer and beverages entirely depend on the package and packaging systems for the success of the product in the market. In the first example, the product is dominant in the relationship and strong emphasis is placed on manufacturing systems design with packaging design merely an afterthought. In the latter example, the success of the product depends heavily on packaging, for that matter manufacturing and the packaging process must be given a balanced consideration. Some of the definitions of packaging by various authors are geared towards the functions. For instance, Hanlon writes that:

"the primary purpose of packaging is to contain, carry and to dispense".⁸

Feirer and Lindbeck (1999:362) also assert that:

"in industry, packaging refers to the containers used to hold products. You see and use many kinds of packages each day, the gum you chew comes in a wrapper, the shoe you buy comes in a box, the soda you drink comes in a bottle, the purpose of these packages is to protect and

identify their content".⁹

Pilditch James (1961:22) also views the function of package in this way:

"the package carries the product from factory to end user, across seas, over hills, through swamps. It guards goods in frozen freight cars or on scorching docks. And it delivers them after weeks of jerks and bumps and abuse, as fresh and crisps as when they left the safe order of your works".¹⁰

He added that:

"the primary job of a pack is to protect goods against.... shock, vibration, light, odour, bacteria, moisture, climate, pilferage, chemical reaction and physical risks".¹¹

Ockumpah-Bortei op cit. (1991:11)¹² in quoting Joseph Hanlon (1971) as emphasising the need of the package to preserve its contents commented that, in most cases the contents of the package may not be used or consumed immediately. It must therefore be protected and preserved for an extended period of time, and this, the package must be able to accomplish.

N.T. Crosby (1981:9) expresses a similar view in his book, food-packaging materials. He says:

"the role of packaging is essentially one of protection

against extraneous agents. The packing material may

however further extend the shelf life of the product.

Furthermore packaging is used to present the commodity

in an attractive form to the buyer".¹³

Richard Dorf op cit. (1994:333)¹⁴ further stated that in general, the package has four primary functions;

- containment
- protection
- performance and
- communication

The basic function of any package is to contain a product or products for purposes such as storage or transportation. The protective function is two fold in that the package must protect the product from surrounding environment and protect the surrounding environment from hazardous or dangerous chemical product. In terms of performance the package must be designed to be easy opening, reusable, recyclable, biodegradable tamper evident etc and finally a package can communicate what the product is, promote an image or meet mandatory labelling or legal requirements.

Crampton and Finney (1988:80) in their book Design And Communication also categorised the functions of packaging into four main groups:

*"A well designed package must protect the goods
while they are being moved around. It must keep*

any separate parts together and yet still allow them to be taken out easily. Some packages need to communicate a variety of technical information about the product ranging from how it is used to advertise or even sell the product they contain".¹⁵

To elaborate these functions, Crampton and Finney (ibid)¹⁶ opine that most goods need to be protected while they are in transit. This means protection on the way to the shops as well as from the shop to our homes. Few things can be more annoying than receiving damaged goods. The package of eggs illustrates the need for protection. It is unsatisfactory to package eggs in a paper bag since it offers little or no protection.

Similarly ceramic products are like eggs and need to be protected against breakages from the factory to the shelf in the shops and to the home of the ultimate user.

The basic attributes of protection, identification and economy still exist for the successful package. They have been joined by the requirements of convenience and sales appeal in all types of outlets as well as retention of appeal in the kitchen.

Enzie (1963:524) has this to say in his book "Planning Your Package":

"A successful package design offers protection for both the contents and the consumers. For the contents, a number of factors must be considered. Water vapour protection in the

case of frozen foods, protection against grease, infestation, odour pick up, contamination, gas transmission and the effect of light. They must be able to withstand impact, shock, crushing and vibrations, and to some extent curtail pilferage especially in the case of ceramic wares".¹⁷

For consumers protection requirements include minimizing the hazards of leakage and the potential harm a contaminated package may cause.

Communication is one of the functions of a package, which is very important. Vital information regarding the handling and stacking of the product is shown on the outside of the boxes. Symbols or pictograms are used internationally to give a number of important instructions. Examples of such symbols and their meanings are shown in Fig.1.

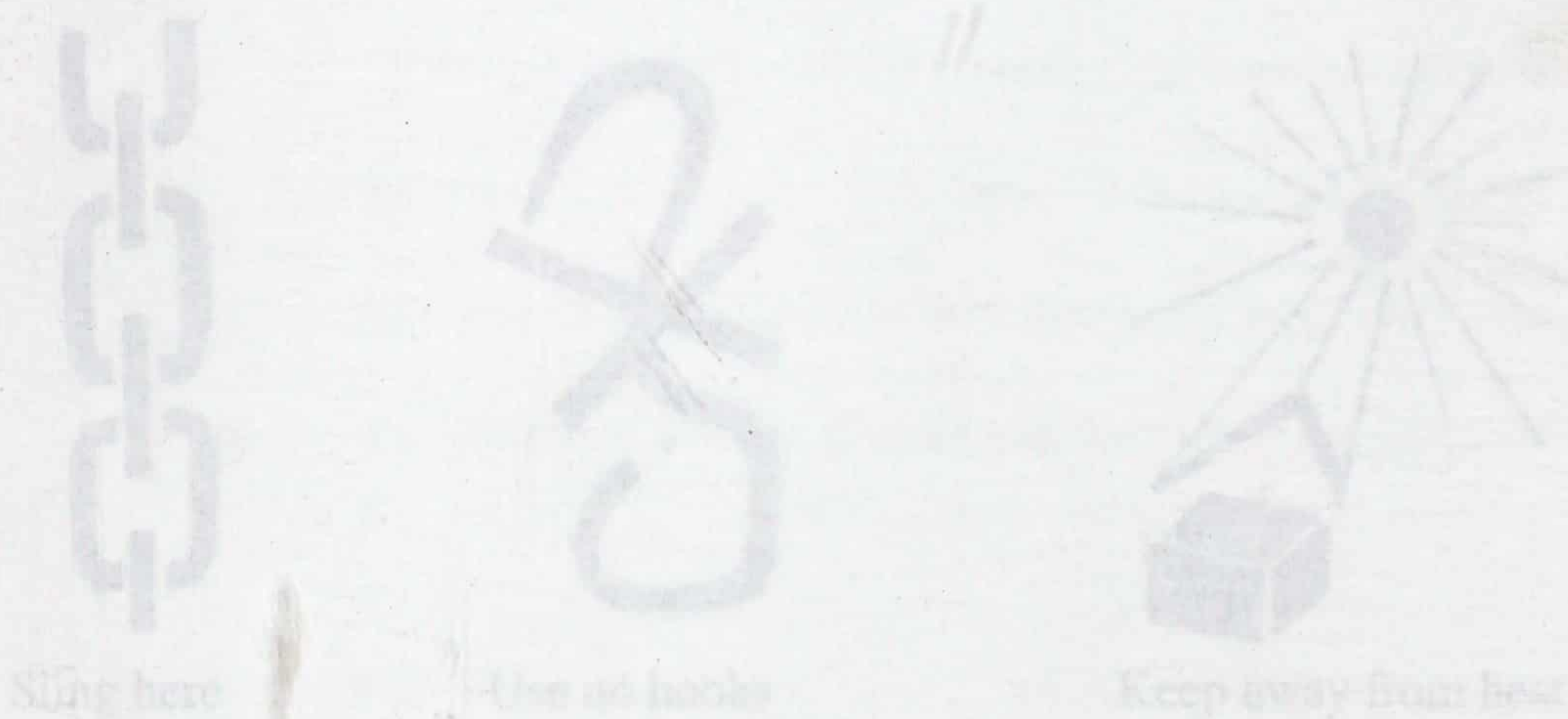
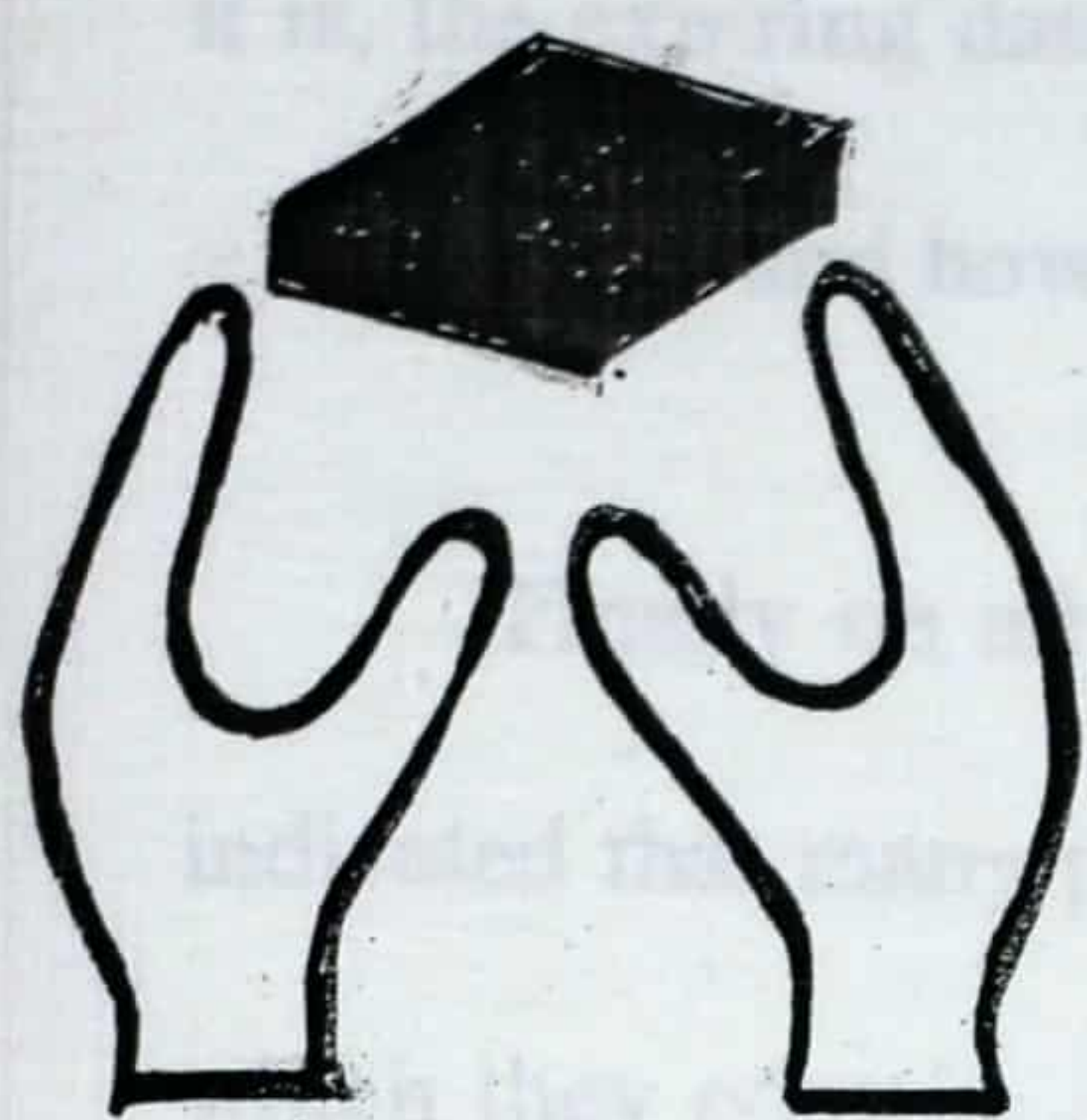


Fig. 1 International symbols for handling packaging



Handle with care

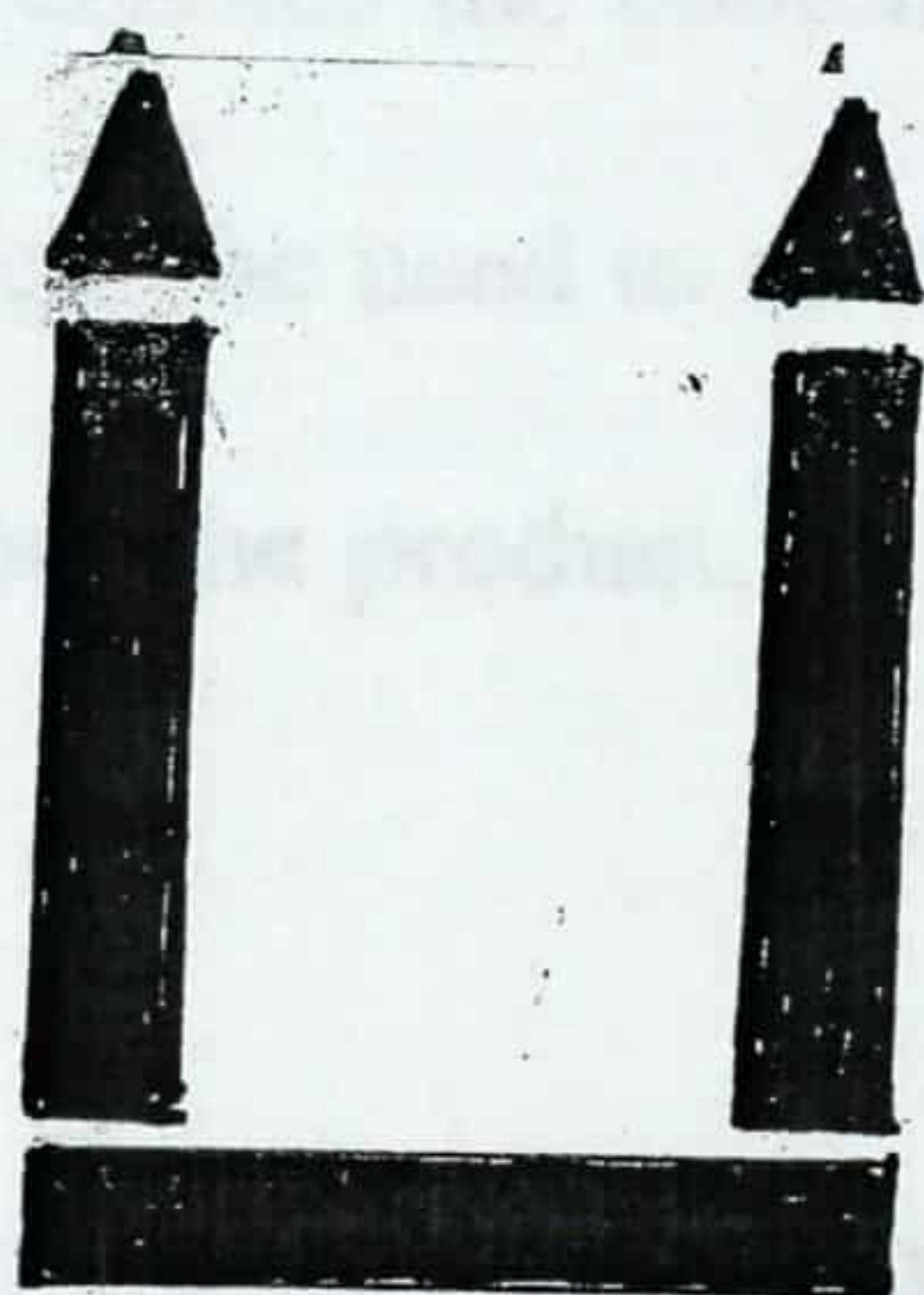


Breakables



Protect from moisture

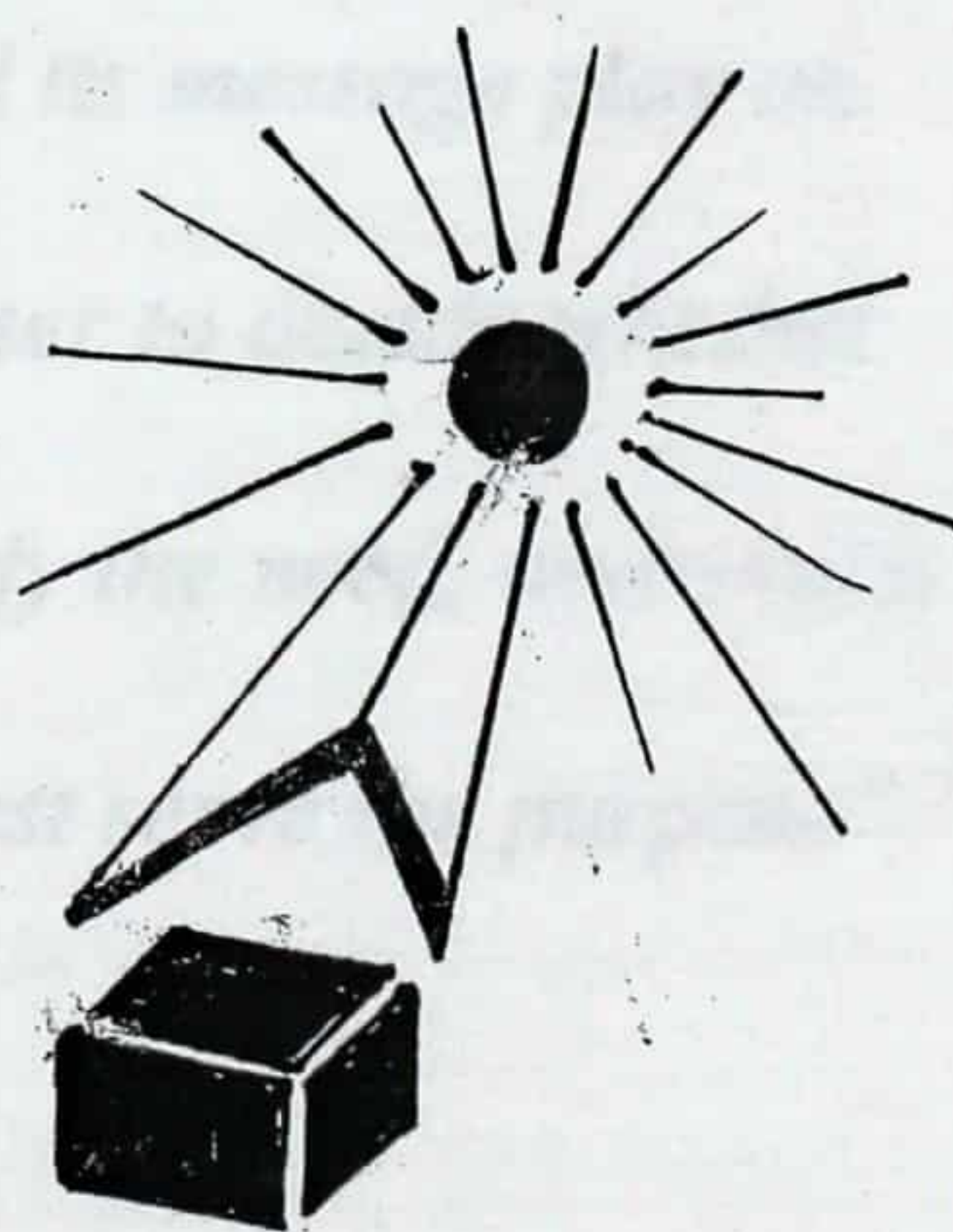
This way up



Sling here



Use no hooks



Keep away from heat

Fig. 1 International symbols for handling packaging

Other packages show technical information about the product itself. An example is a film box; it conveys a variety of information including the type of film it is, the expiring date, and the number of shots which can be taken (that is exposure – 24, 36 etc) and how it is loaded into the camera.

Finally on advertising and selling the goods Crampton and Finney (op cit)¹⁸ indicated that many packages are actually designed to advertise and sell the product, which they contain. They may show what the product can do or give details of its special offer bargain price in order to make it look attractive to the customer. For example, on a can or box is written “25% extra-free” etc. Packages can help to sell the product if they can show what the product looks like. Many packages have a window in them, which enables the contents to be seen easily and the backing card provides an area, which can be used to advertise, promote or communicate any other information required about the product. A photograph or illustration is also used to show the product.

Hanlon has this to say about packaging as a motivating factor and promotional device:

*“At the point of sale the package and its message play an important role in helping the purchaser to decide whether the contents of the package will satisfy the need, and which of a variety of sizes or brands will best serve the purpose”.*¹⁹

Hanlon further states:

“packaging becomes a potent force in motivating the

consumer to make a purchase and to promote the sale

of one brand rather than another".²⁰

F.A. Paine (1962:1) considers the protective function and the cost of packaging by saying:

*"packaging is a means of ensuring safe delivery of
a product to the ultimate consumer in a sound
condition at the minimum overall cost".²*

Jos Anyima-Ackan (2000:9) in his article Packaging, essential input for export which appeared in the Daily Graphic of Tuesday October 30th 2000 stated that:

*"basically, packaging facilitates the carriage and protection
of the products against risks; like damage, spoilage and theft
in the storage and distribution channel".²²*

He further stated that packaging has assumed a marketing dimension that helps to promote the sale of products. In practical terms, innovative packages attract consumers while the poor ones tend to discourage them from purchasing. The Export Packaging Development Company in Asia and the Pacific in the handbook "Packaging of Handicraft" considered the function of packaging as protection and sales promotion. They contended that packages are a means of containing products so that they can be delivered from manufacturers to the consumer.²³ Again packaging protect their contents from physical, chemical and biological damage during the course of distribution and also play a vital role in sales promotion.

A good package therefore should perform all the following functions:²⁴

- a) protect products from damage;
- b) preserve the quality of products;
- c) enable products to be handled by integrated transport systems;
- d) describe the content of the package;
- e) facilitate economical packing and unpacking operations;
- f) contribute to the consumers' perception of the product value.

2.4 Types of packaging

On the types of packaging Hanlon (1997:1.6)²⁵ identified three broad categories of packaging. Category one, which includes consumer packaging concerns small units in large numbers and are often decorated in an attractive manner. Category two as industrial packaging usually made up of larger and heavier units and category three covering military packaging which is highly specialised type of protective packaging usually influenced by the government to document it in a more intricate way (such as using military codes).

Richard Dorf (1994:336)²⁶ on the other hand grouped packaging into three broad categories as:

- 1) Primary package
- 2) Secondary package
- 3) Tertiary package

The primary package for the soft drink is an aluminium can with an easy-open lid. It is the package that is in intimate contact with the product.

The secondary or unitising package could be a paperboard container used to hold 12 individual cans or the plastic Hi-cone rings used to hold 6 cans.

2.4 Modern Packaging materials and forms

The tertiary package would then be the corrugated tray used to combine the secondary packages for subsequent palletization and containerisation. Palletization is a low platform used to stack or accumulate a number of smaller units of a product so that they may be conveyed by mechanical means (wood, plastic, corrugated craft board) and containerisation is a large standard-sized metal box for transport. In general, the secondary package is the unitising package and the tertiary package is the shipping container. In some instances one package could be a primary and tertiary container combined. Ceramic wares fall under secondary packages where unit packages are produced with paperboard and Kraft board.

2.5 Packing and Shipping

Up until 1925 much of the wares were shipped in wooden casks with straw as packing. The older potters can still remember the horse-drawn drays rumbling to the freight siding with a load of huge casks. Now, the bulk of the ware is packed as sets or place settings in specially designed cartons. This has several advantages. First the ware can pass through the jobber and store to the ultimate consumer without separate handling and breakage loss; secondly, the store does not have to repack the ware and thirdly the wares do not have to be washed before going to the customer. However the wholesaler has no opportunity to inspect the ware for defects and for that reason

may have more customer complaints. This clearly shows that a form of packaging has existed but mostly in a bulk package.

2.6 Modern Packaging materials and forms

In the earliest time, if you wanted a box you made it yourself. Later, box making became a trade. In the 1930's boxes made of thin wood were advertised. Similar boxes, some of wood and some of paperboard, were still being manufactured by hand labour in the 19th century. By this time printed labels were being pasted on the outside. The oldest box surviving today is a wooden box made in 1801²⁷.

Commercial box making is supposed to have begun in England in 1817. The oldest surviving cardboard box is believed to have been made prior to 1825. In the United States the first box makers set up their trade in 1810 in Philadelphia. Because of the difficulty in making wooden boxes and cardboard boxes in the early 19th century, packages were usually round. When stores began to supply boxes to their customers, folding boxes were introduced to save storage space. The first ones were believed to have been made in America in 1850 to package tacks. In 1870, Robert Gair who had already made success from paper bag manufacture invented the first automatic cutter-creaser and by 1897 there were over 800 patents relating to folding boxes. By the early 1900's cereals such as Grape-Nuts (1898) Post Toasties (1904) and the original Uneda biscuits were being packaged in waxed paper lined unprinted cartons with printed over wraps showing the product brand name and advertising copy.²⁸

By the latter part of the 19th century, all the ingredients for modern packaging machinery were available. Packaging materials were being made by machine. Packages were being fabricated completely by machine as with paper bags, or in several separate operations as with cans. One by one various hand operations were studied and replaced by machinery. These included: package set up, product metering, application of package to the product and vice versa; package closing, collecting of packages, preparation (set up) of shipper container, placement of packages in shippers; closing of shippers.

2.7 Rigid Packaging Materials

Under the rigid packaging materials we have glass containers, metal cans, composite containers, solid and corrugated fibreboard, wooden box and crates. The semi-rigid packaging materials include aluminium container and moulded pulp containers. Flexible packaging materials include: paper, films, aluminium foils, but for the purpose of this project, paper and corrugated fibreboard will be discussed.

2.8 Paper

In flexible packaging the basic papers used are: bonds, tissues, litho, kraft, glassine, parchment and greaseproof.

2.9 Bond papers

They are uncoated sheets made of bleached chemical pulps in weights ranging from 20 to 70 pounds. They are supplied with a wide variety of high finishes and may be purchased with high wet strength and tear strength and as printing and laminating grades. Machine finished papers are usually not smooth enough for fine printing. Machine glazed bond papers are used for gum wraps and printing applications.

2.10 Tissues

They are lightweight papers made of semi-and fully bleached chemical pulps in basic weights ranging from 8 through 20 pounds with open or close fibre formation. Special treatments may be added such as wet strength and mould resistance. Where a bright white tissue is required, machine glazed bleached tissues are used. For application requiring 'bleed' porous tissues are required.

2.11 Litho papers

They are sheets coated on one or both sides in basic weights ranging from 29 through 60 pounds. These papers are especially prepared to produce a smooth printing surface. They are not as strong as bond, but have a better surface for reproduction of printing and are preferred for label stocks. Two-side coated litho paper is often used in publication advertising where both sides of the sheet must be smooth for printing.

2.12 Kraft papers

“Kraft” is a German word meaning “strong”. They are extremely strong and may be used in bleached or unbleached forms and wet strength levels. Crafts are classified as “Southern” or “Northern”. “Southern” grades are made from softwoods grown in the Southern part of the United States. They are usually porous; non-uniform in formation and comparatively rough. They also have high tear strength. On the other hand “northern craft papers are supplied from the Northern part of the United States and are more uniform, less porous and have high tensile and Mullen strength values. Due to the strength of Kraft papers, they are most useful in many applications where bonds and litho are not strong enough. In addition they are much cheaper than other stocks. A high wet strength natural northern Kraft is used for printing canister labels where a smooth and strong sheet is required. Glassine papers are super calendared chemical pulp sheets in basic weights ranging from 15 to 45 pounds. They have high resistance to grease. All glassines are stronger and stiffer than most other papers and have a smooth, glossy surface. Some are fully bleached while others have a greenish, greyish or bluish cast.

2.13 Pouch paper is made in a similar manner to glassines but plasticity is added to give the paper softness and machinability. They are used in candy wraps and other food applications.

2.14 Parchment papers are made of bleached chemical pulp, which is immersed in a bath of sulphuric acid. They are good greaseproof papers and have a

rougher and more opaque appearance than glassines. They are supplied in grades ranging from 15 to 27 pounds. Applications include butter and aloe wrappers. Stiffness affects packaging machine conditions. Paper remains an important factor in flexible packaging because they contribute strength, stiffness, smoothness and low cost. To conclude, the careers Encyclopaedia, 8th Edition (1975:301)²⁹ says packaging design involves understanding the implications of the technical, marketing and aesthetic demands, and requires specialist knowledge of packaging materials and typography as well as overall design considerations. These will be discussed fully in chapter three.

The importance of packaging can be seen in the light of the vital functions they perform in relation to the marketing of the product. We can only satisfy the buyers' needs by ensuring that the type of marketing mix that we offer is suitable for the sale of goods such as ceramic wares. However we do find on our markets products with packaging that fall short of international standards. These are found with delicate manufactured products such as foods, drinks etc. Often containers used are inappropriate and fail to meet the basic requirement of protection against damages during transit. Invariably, labels are also poorly made. They neither attract attention, arouse interest nor help to create consumer confidence in the product.

Manufacturers may get away and make windfall sales with shoddy packaging but only in periods of scarcity. Until recently, perishable consumer products were selling in Ghana without any indication of the expiry date on the package and some even did not have labels, but with the introduction of the trade liberalization policy in Ghana in recent times, products are being imported into this country from several sources. Ghanaian manufacturers find their products in direct competition with the

imported ones. They are now becoming aware of the need to pack and package their products adequately to be able to compete favourably with similar products imported into the country. The competition and the need to stay in business profitably have raised the standards of packaging and finishing qualities.

2.15 Products of Ceramics

According to Jones et al (1972:2) the word ceramics is not often used to describe dishes, pottery and figurines, but wall tiles, building bricks, high voltage insulator and glass products are also ceramics.³⁰

Products of ceramics could be grouped into six broad categories, they are:

- 1) Pottery – tea sets, water sets (mugs) Pots (casseroles) and crockery items.
- 2) Sanitary – baths, sinks, water closets, and conduit pipes.
- 3) Architectural – bricks, roofing tiles, floor tiles, wall tiles, murals,
- 4) Ceramic Sculpture – decorative pieces, e.g. fountains, garden figurines including flower vases.
- 5) Medical ceramics – tablets, artificial teeth (false teeth) medicated powder, detergents, etc.
- 6) Technical ceramics – electrical insulators, either domestic or high tension ones, mortars and pestles, crucibles, insulating bricks etc.

From the foregoing points on the functions of packaging it could be said that, the more consumers are made aware of the existence of a product the more likely they are to buy it. It could also be said that though the role of advertisement cannot

be ruled out, it is the package, which sells the product since majority of products on the shops are locked between the loyalty of the consumers and the demands of the retailer. There are more products available and consumers have more choice yet they are more discerning. Good packaging can dictate the choice of consumers under the circumstances.



Plate 1 Ceramic products displayed on tables and shelves

Ceramic producers and sellers would benefit from this project since it will protect their wares from breakages and also attract customers to buy. All the issues discussed above point to the fact that ceramic wares need to be packaged at the factory.

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CHAPTER THREE

GENERAL PROCEDURES

3.1 Factors that were considered before work started

Though it is certainly true that demand, experience, press and advertising influence the consumer's choice of a product, it is the package itself that often convinces him to buy.

Packaging design must be directed towards maximizing the sales appeal produced by the overall appearance of the filled package. It is advisable to seek assistance from professional designers familiar with packaging and with requirements in the target markets when considering the promotional aspect of the package. This chapter is set out to explore and design simple but attractive packages for a set of flat plates, flower vases and mugs, which have practically no form of packaging. However certain factors need to be considered before any attempt is made at the preliminary sketches. These are:

- observance of international quality standards
- cost of materials
- brand name
- colour
- typography
- size and weight of the product.

3.2 Observance of international quality standards

International standards are issued by: The United Nations and Economic Commission for Europe (UN/ECE); The organization for Economic Co-operation and Development (OECD); The European Economic Community (EEC).

- The marking on the package should include relevant information concerning the package itself i.e.
 - the name or trade mark of the package manufacturer (and production unit, if relevant)
 - where appropriate, reference to the lot and/or to the time of production.
 - reference to the specification and/or quality certification mark of the package if these exist.
 - bar code: marking of the packages as a basis for control of quality and package performance. Moreover it facilitates stock control and administrative recording.
 - unique selling proposition (identifier). A catchy slogan of the product e.g. 'Extra O', '100% sun ripe', 'the best' etc.
 - family appeal: an identification mark which is similar in all the products must be maintained.
 - illustrations must go round the pack.

Package manufacturers and package users have a joint interest in precise identification of the package. This is particularly the case in those situations where package quality is considered the cause of damage or loss.

3.3 Required information

Information about the product is required throughout the process of transfer from the packer to the retail trade. International standards require that the product should be specified on the package if the contents are not visible from outside.

The total product should always be indicated in accordance with standards or commercial practice relevant to each type of product. The sizing may be based on: diameter, circumference or weight of the largest and the smallest items in the package. The number of items per kilogram or, the number of items in a given type of package is designated by numbers, letters or words. The quantity in a package can be stated in terms of either net weight or number of items in combination with the item size. International standards do not normally mention quantity indication but certain national legislations prescribe general as well as specific rules for quantity labelling.

For smaller items of products it is generally most convenient to state the number of items. All weight indications should be stated in metric units (kilograms, grams); weight indications in imperial measure (pounds, ounces) only is illegal throughout Europe. Weight in pounds may be stated as supplement to the indication in metric units provided it is presented in the same field of vision and with lettering not larger than that used for the metric units.

When the package contents are standardized in terms of net weight, the gross weight may be pre-printed on the package. Such indications facilitate calculation of gross consignment weight as a basis for calculation of the freight. Indication of the

gross weight is seldom of importance to the trade, as weighing can be carried out when required at any point in the distribution process.

Marking of the time of packing is not required by international standards. However, indication of the packing date is a practical means of maintaining quality by assisting stock control and rotation throughout the distribution system.

Open date markings have obvious advantages, but may meet resistance from producers who have a slow turnover rate. The marking should be presented as follows:

1. in accordance with ISO recommended practice e.g. 2002-03-02 or
2. using abbreviations for months, e.g. 02 Mar. 2002 Mar. 02, 2002 or
3. using Roman letters for months e.g. 02 iii 2002-
4. When no year is indicated methods 2 or 3 are preferable.

3.4 Reference information

According to international standards packages should be marked with their country of origin.

3.5 Transport information

For packages travelling as individual units, each package requires identification labelling. Furthermore, although most transport by sea is in the form of palletised units; it is still preferable that the exporter marks each unit package even

for sea freight. Packages travelling by air normally require individual identification. In order to facilitate sorting at loading and transfer points, indication of the final destination is also useful.

3.6 Language

Most countries have some regulations requiring the use of national languages for labelling. With respect to transport packaging, these rules are seldom strictly administered. As a service to the distributing trade and in order to prevent shipping difficulties, import labelling in both English and French or relevant language should generally be used. The label text should be checked carefully before printing. A competent person who has the language in question as their mother tongue best does this.

Products specially packed for countries speaking languages other than English and French should after agreement with the importers be labelled in the national languages of such countries. A careful check of the wording should be carried out in the countries concerned.

3.7 Appearance of the Package

General considerations

When considering the promotional aspect of the package, it is advisable to seek assistance from professional designers familiar with packaging and with

requirements in the target markets. It is important to identify all the groups of persons in addition to the final consumers who may see the package. It is also important to locate the persons within these groups who make purchasing decisions, which can be influenced by the package appearance.

3.8 Buyers' requirements for product packaging design

The major product distribution groups and their buyers have a preference for security, order and long-term profit in their business. In the light of this, their general attitude towards package appearance can be summarized as follows.

- a) The graphic design should communicate an image of order and functionality as an extension of the information provided without distracting the viewer from that information.
- b) The package materials and construction should be reliable based on prior experience. The package appearance may be similar to that used by the best and most reliable suppliers, provided that it does not cause confusion with the originals.
- c) Colourful printing is acceptable and often appreciated, provided it does not incur extra cost. Luxury items are often expected to be packed more expensively than normal produce.
- d) Frequent changes in the package appearance are not appreciated. It reduces the product recognition effect and leaves an impression of unreliability.
- e) Well-executed, simple package decoration is preferred to poorly reproduced ambitious designs. Poor workmanship may inspire the thinking that if the

suppliers' packaging is amateurish, other features of his operation may also be so.

- f) The package appearance should represent the product in terms of its nature quality and origin. Use of packaging with an inferior appearance to that generally employed for the produce concerned may down grade the prices obtainable. A package appearance which is distinctly more luxurious than justified by the nature and the quality of the contents may be considered deceptive, and have a negative effect of sale.

When a product is introduced into a new market, upgrading the package appearance may assist the launch phase. For example the use of extra prints, colours and promotional touches such as attachment of illustrated leaflets in the appropriate languages can accelerate market acceptance of a new product.

In practical terms the above references normally favour:

- Distinctive, but simple decoration. A design in one or two colours formed from simple shapes and arranged with an uncomplicated frame will often have the best impact and will have a small risk of technical failure. Halftone printing and other design features sensitive to inaccurate register should be avoided whenever possible.
- Use of good packaging materials. If the package cannot stand up to transport hazards, no form of decoration can compensate for the resulting product damage. For corrugated and solid fibreboard packages, virgin coniferous kraft paper of appropriate weight should be used as the liner material. Because of adverse experiences, traders

look with suspicion on liner materials, which are apparently based on recycled fibre.

The buyers' perception of package quality can also be influenced by non-visual features of the materials. The 'feel' of recycled fibre materials often gives rise to mistrust about the packages' durability.

3.9 Presentation of the product

An important feature of package appearance is its capacity to present the product attractively for retail sales. Packages which are simple to open and close, and which present the product directly without the need to lift or unwrap it are preferred to those which are time consuming to open, or require tools. The retail trade is always looking for products, which can provide a direct promotional display in the shops and avoid the need to transfer it to counters or shelves. From a promotional viewpoint the best type of packages are those with a fully opening top, which contain only one layer of product and present the merchandise at its most attractive angle.

3.10 Demographic Positioning of Colour

Colour is one of the most potent tools in package design. Its role in packaging is enormous. A product may be very effective but then if the appropriate colours are not used for the package it is bound to fail on the shelf. Colours must be chosen for their market effectiveness, not simply because the client or the designer, both men of

taste and sensibility like them. Demographic positioning of colours simply means the type of colours preferred by people in terms of sex, age and status. For example, men prefer dark blues, rust, black, blue black and dark browns. Women go in for greens, blues, pinks, white, red, mauve, beige, ash etc. Children like gay, bright and shouting colours.¹

The following questions must be considered:

- i. Are there any particular colours which are preferred or should be avoided in the selected target markets?
- ii. Have fashion trends been observed in the selection of colours?
- iii. Are the selected colours strongly associated with the type of product, and the consumer target group?
- iv. Has the visibility and readability/contrast of texts, and the effect of colours on apparent package size, been taken into consideration?
- v. Have the technical and economic aspects of the selected number of colours been discussed with the printer?
- vi. Is the number of colours in proportion to the desired effect of the design and to essential commercial requirements? Is there a strong reason for each additional colour?

Roth Larzlo (1981:) commenting on the role of colour in Packaging has this to say:

..... "Colour gives prestige to the package,
product, or advertising".²

For that matter, there is no doubt that people have deep feelings and emotional response to colour and based on this it is imperative for the designer to use very attractive and harmonizing colours for the package for ceramic packages.

Howard Milton also has this to say:

*"Colour is a precursor to the design brief"*³

In other words it could be said that, the starting point of graphically dismantling a design structure is the overall impression created by colour.

Walter P. Margulies also contended that:

*.....to enhance the appearance of the product to catch consumers attention use of colour is important".*⁴

Howard Milton also expresses similar sentiments about colour that passive or dull colours are always rejected when it comes to visibility on shelf.

In as much as colour plays a significant role in packaging, product worth is also communicated through typography. People recognize, interpret and associate particular typographic styles with quality and function.

Milton also has this to say:

*"It is the dual description of colour and typography that implants the message".*⁵

However the handling of the text on a package should be given very careful study.

3.11 Typography

A product worth is communicated through typography. A typical typographic style is recognized, interpreted and associated with quality and function. San-serif typefaces communicate with clarity. As such ceramic package is designed with san-serif type to show stability.

Type selection is a matter of style and readability. It is useless choosing a typeface for its unusual appearance if it proves difficult to read. A balance has to be reached to ensure that the style is suitable and not only legible but encourages the consumer to read. Straight or horizontal positioning of typography is preferred to slant when legibility is being considered. Some typefaces and their psychological effects or interpretation:

- ❖ **CERAMICA** – CIVIC (STABILITY)
- ❖ **EKEM POTTERY** – ELECTRIK (ELEGANCE)
- ❖ **PREMIER CERAMIC** – BALLOON XBd BT (BOLDNESS & MOTION)
- ❖ **CERAMICA** – AMERICANA XBd BT (SIMPLICITY)

3.12 Brand names

Considering the users' dilemma of choosing every item he sees in a shop, it is appropriate to adopt a brand name that allows for easy recognition and attraction.

A brand distinguishes itself from a product because it possesses an identity which signals to the consumer four elements; purpose and performance, quality and value. Choosing a brand name for a product is important from a promotional perspective because, brand name communicates attributes and meaning. Consumers search for brand names that can communicate product concept and help position the product in the mind of the consumer. Brand names must be short or easy to pronounce and must not be offensive to the target market.

Many companies use individual brand names for each product because they want each brand to have a unique and distinct image and not be influenced by association to a company, family or product line frame. However, the promotional costs for new products are generally higher when individual brand names are used. Examples of typical brand names some products on the Ghanaian markets are: NKULENU, YEWODZE, CLASS BITTERS, FRALENA, etc.

3.13 Selecting the unit packaging

The selection of packaging depends upon the specific product, the cost and availability of materials at the export supply point and the specific distribution channels, transport system and market. The packaging should protect the handicraft from various types of physical damage such as tarnishing and corrosion, scratches, discoloration, staining, moulding, squashing etc. that may occur en route to the market and the final consumer. Finally, the product and the dimensions of the outer packages; the pallet and the freight containers should determine materials to be selected and dimensions for the unit packages to follow. Ideally, the unit packages

should fit exactly into the standardised outer package. Delicate articles such as glass, ceramics, lacquer ware and minute marble ware require to be provided with specific physical protection to prevent damages. If more conventional cushioning materials such as plastic bubble film or plastic foams are not available, substances like paper cuttings, fabric cuttings and grass may be used.

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CHAPTER FOUR

THE PROJECT

4.1 Materials, Tools and Equipment

For the purpose of this project there is the need to use appropriate tools and equipment as well as suitable materials in order to carry out the project successfully. The various types of tools and equipment used will be identified. This chapter describes the various tools, materials and equipment used in designing the packaging and their uses.

4.2 Materials

The major materials for this project are paper (chip board) adhesives (P.V.A) and foam (pieces).

Paper: (Chipboard)

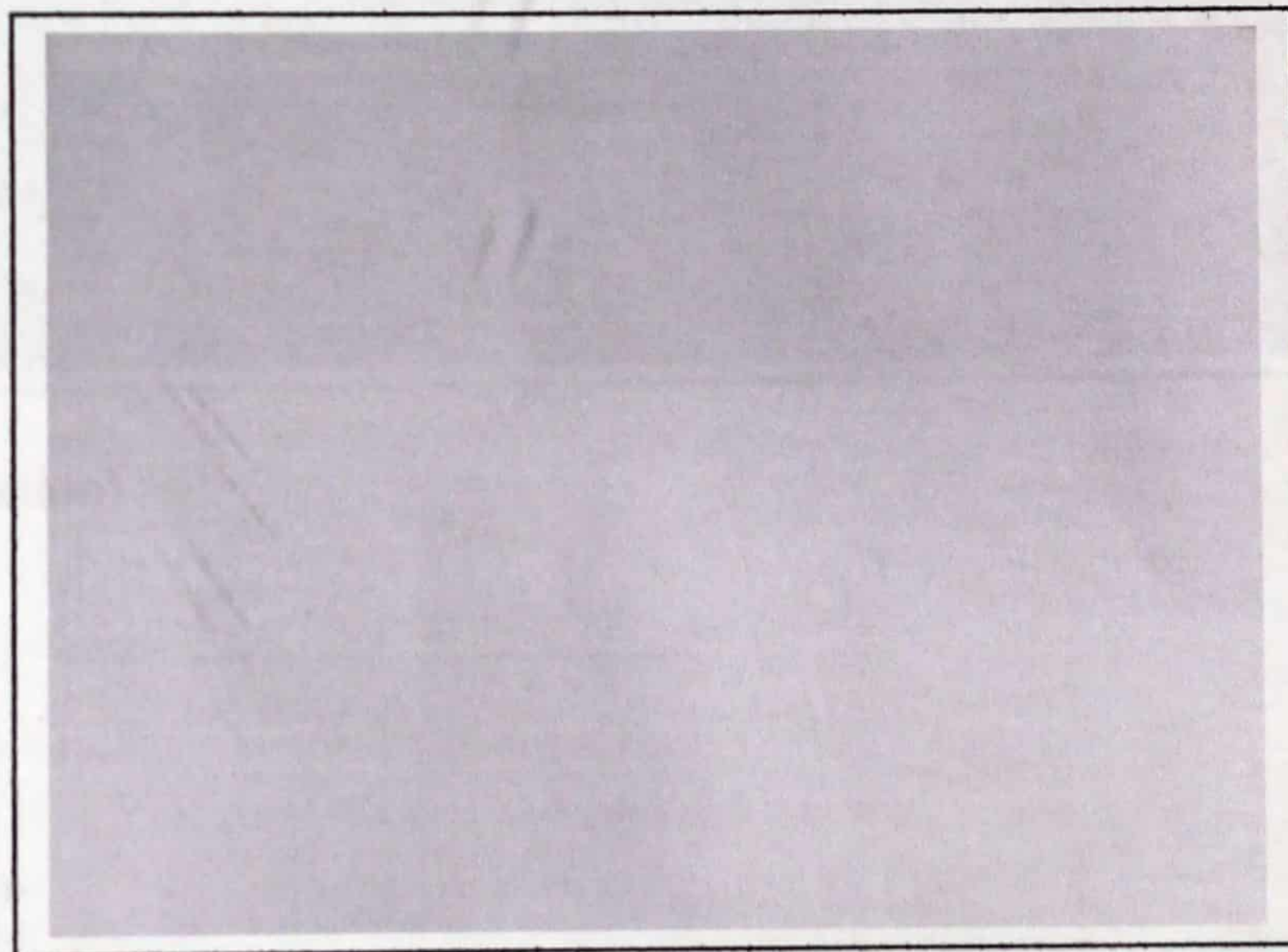


Plate 2. Paper (Chipboard)

Description: It is a type of heavy board that comes in various thicknesses. The half of an inch type is recommended.

Uses: It serves as the main pack or container for the finished product.

4.20

Foam/Cushion

This is a flexible, porous substance made from natural or synthetic latex compounded with various ingredients and whipped into froth.

Uses: It is used for a wide-range of consumer goods including padding for furniture, mattresses and pillow. It is used here as a vibration damping material.

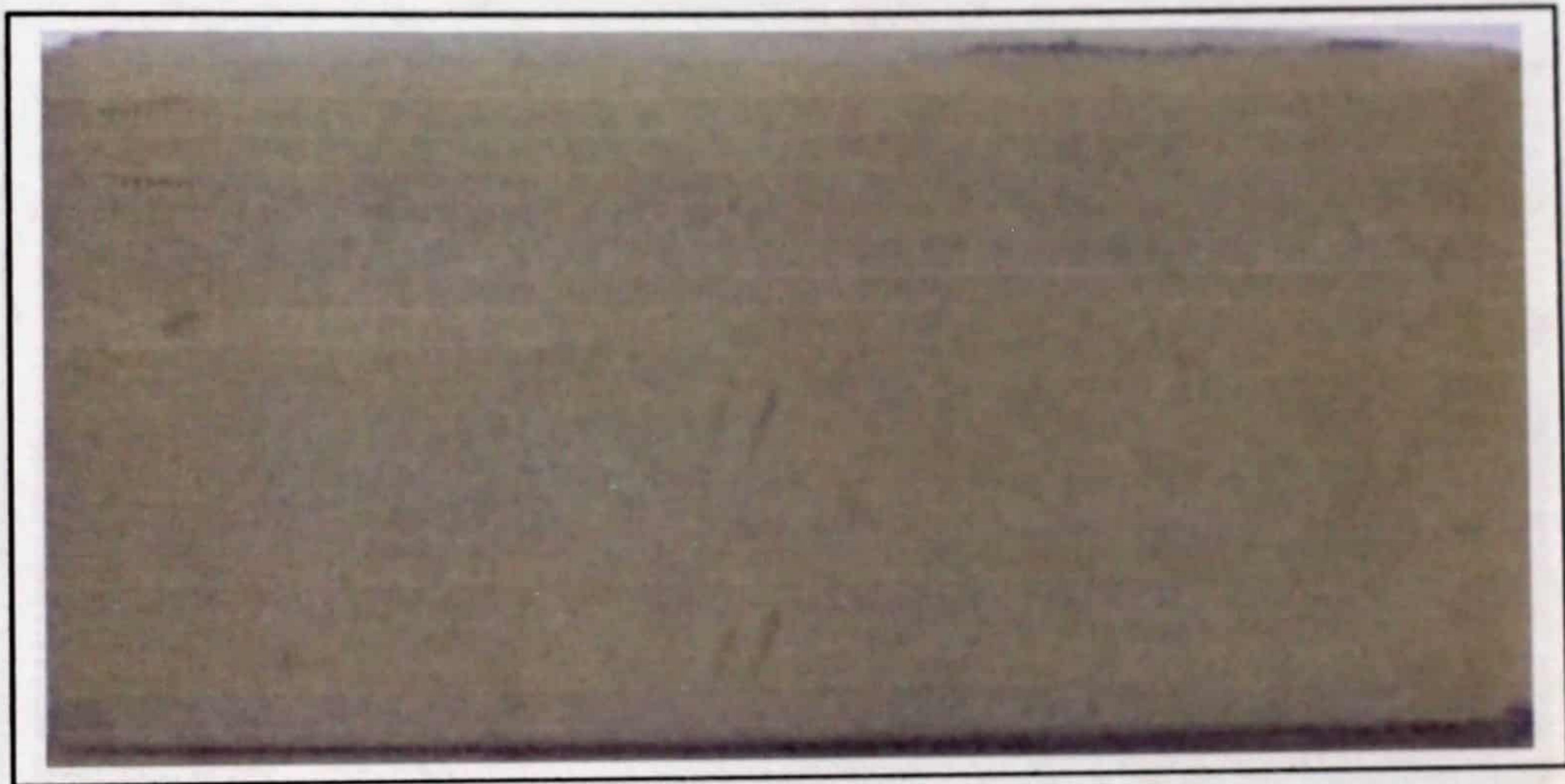


Plate 3. Foam (Cushion)

4.21 Adhesives - PVA (Polyvinyl acetate)

Description: This brand of glue is a water-based adhesive. It is got from extracting natural substances especially from bone in boiling water.

Uses: It is used to join two separate cardboards together to form the pack, and also to stick the label onto the pack.



Plate 4. Adhesives

They are devices that are used to produce a work. The tools required for the production of a package are many but for the purpose of this project the cutting tool was used.

They come in various designs and forms but perform basically the same function. The utility knife is made up of a cutting blade and plastic handle held in the palm for cutting.

Uses: It is used to cut cardboard for the construction of the package and also for cutting the paper for the label with the help of a metal rule.

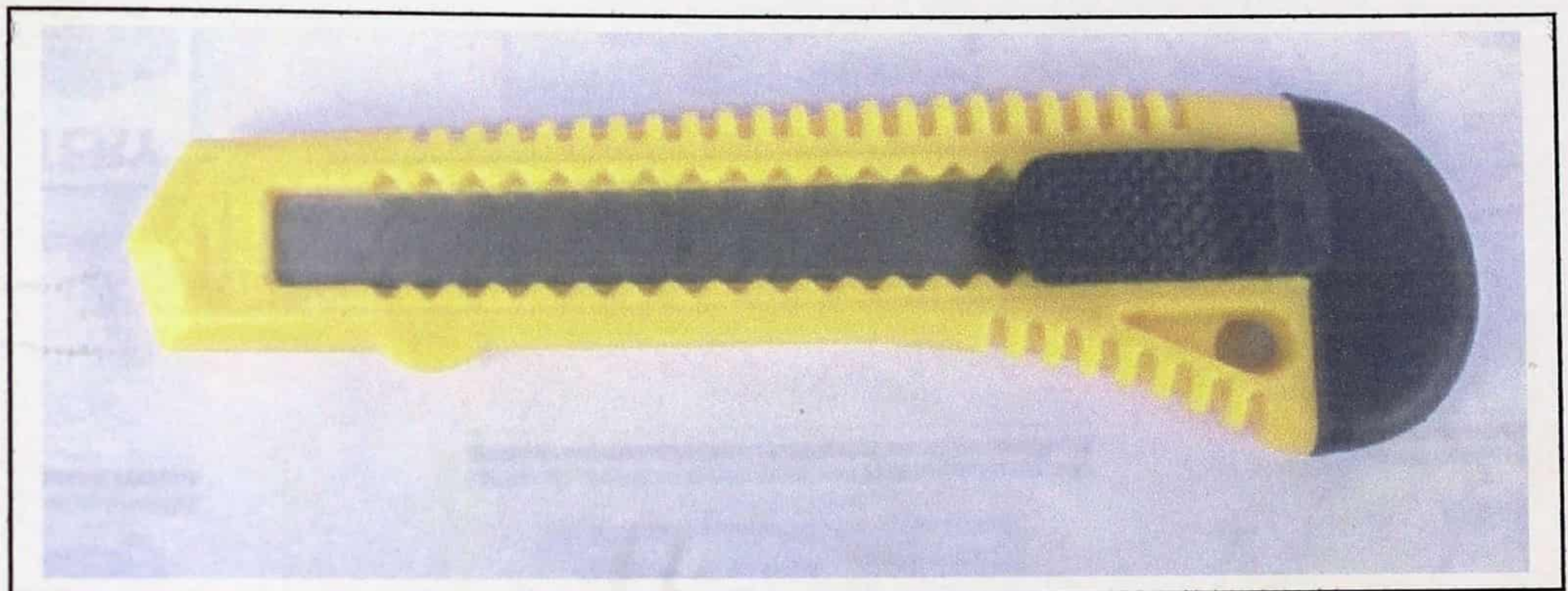


Plate 5. A cutting tool (Stencil knife)

4.30 Marking Tool

A long flat straight edge plastic of 12 inches in length with graded markings.

Uses: It is used to measure the length required and also for ruling lines on the cardboard before cutting.

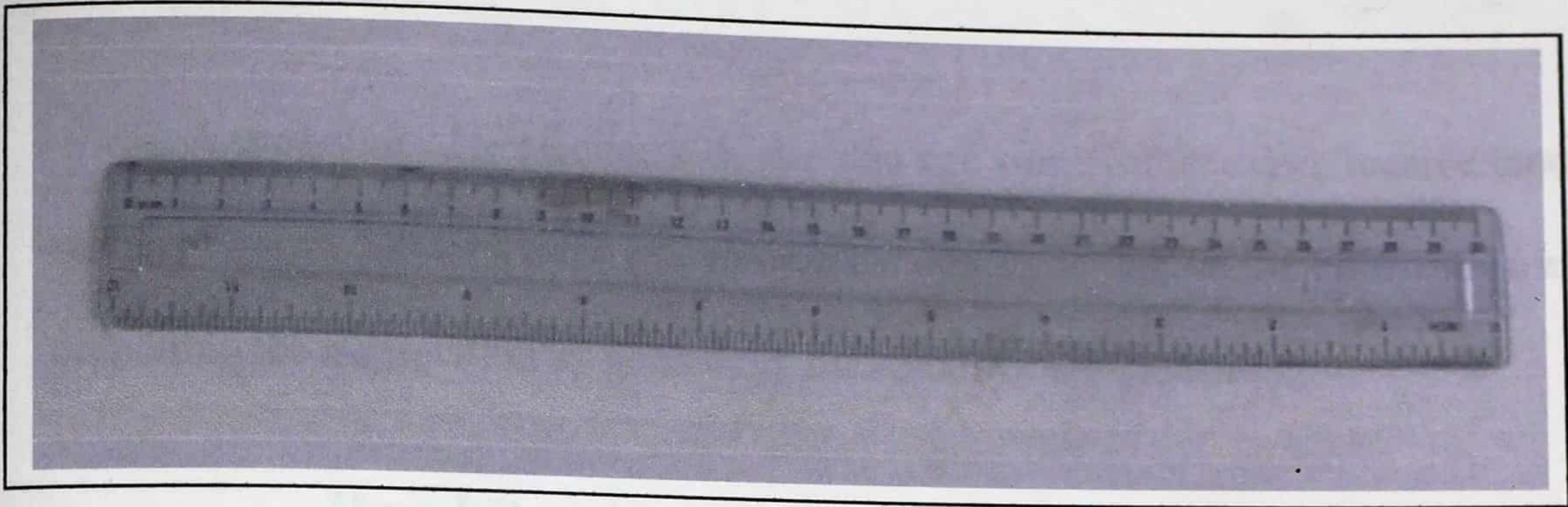


Plate 6. A marking tool (the 'plastic foot cm rule')

4.4 Equipment

Things that are needed for a particular purpose or activity, which are fairly large.

4.40 Computer

A programmable electronic device that can store, information, receive inputs such as figures, facts, pictures etc. process the data by acting on the information and outputting the information by generating the results of the processing.

Uses: It is used to design labels and print out for the pack.

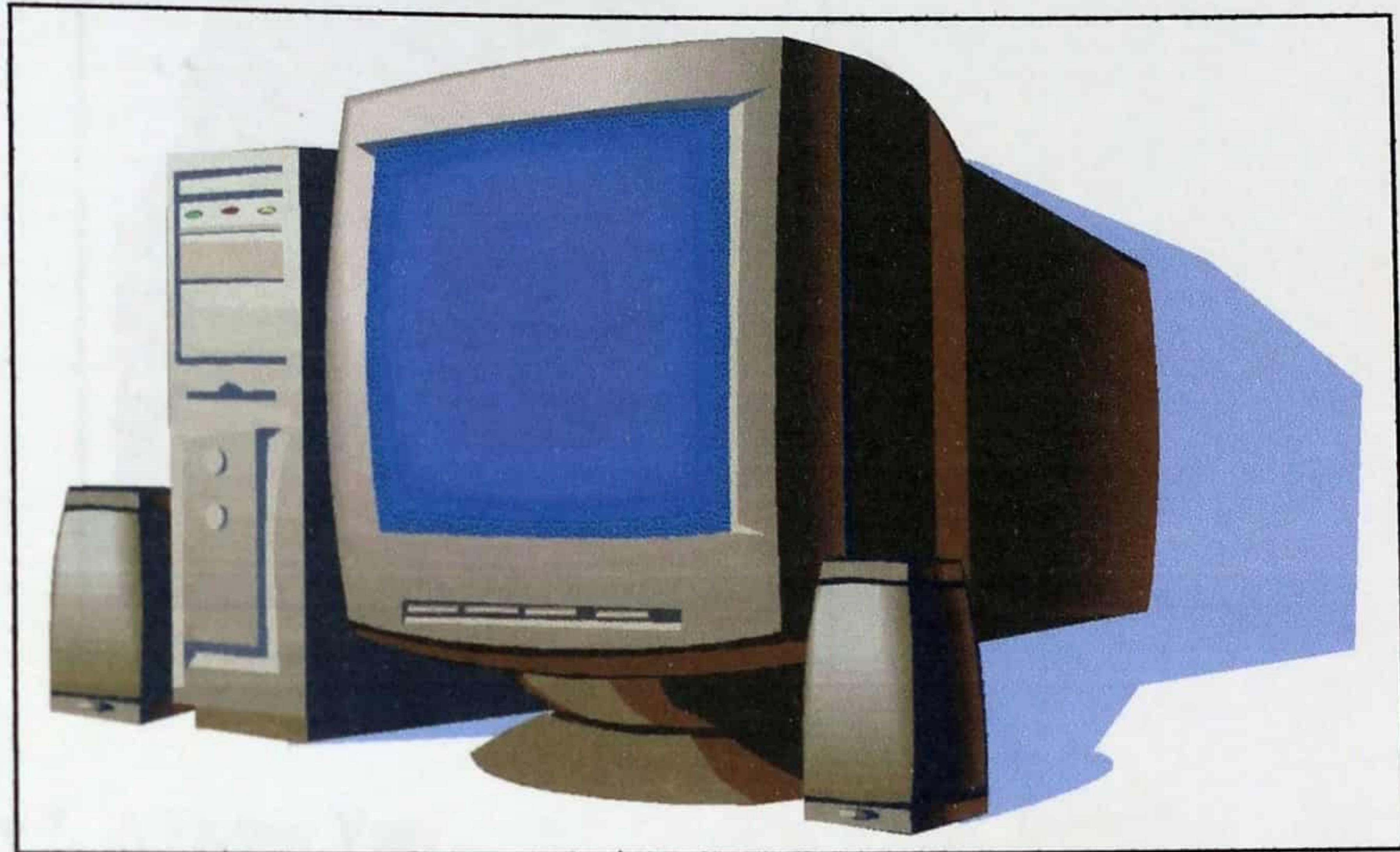


Fig. 2 Computer

4.5 The Pack

The project involves construction of a pack for; a flower vase mug (cup), sugar bowl and milk jug and giving them labels. The first part, which is the construction of the package with a cardboard, takes into consideration the size and weight of the product to contain it. The second part is giving the product cushioning to protect it. The third part is giving it a label to attract consumers. The package is a rectangular box with the height and breadth of the product measured.



Plate 7. A Flower Vase

The barrier and cushioning material for the inner package should be considered and the formula for calculating is given by the ISO as $L=2wd+2d+5\text{cm}$, $w=1+w+5\text{cm}$ where **L** is length of container and **d** is the depth of product and **w** is the width of the product. Based on this formula the package must be constructed with this specification.

4.50 Construction of the Pack

The base and the height of the pack should be measured. The rectangular base measures $12\frac{1}{2}\text{cm}$ by $11\frac{1}{2}\text{cm}$ and the height is $10\frac{1}{2}\text{cm}$.

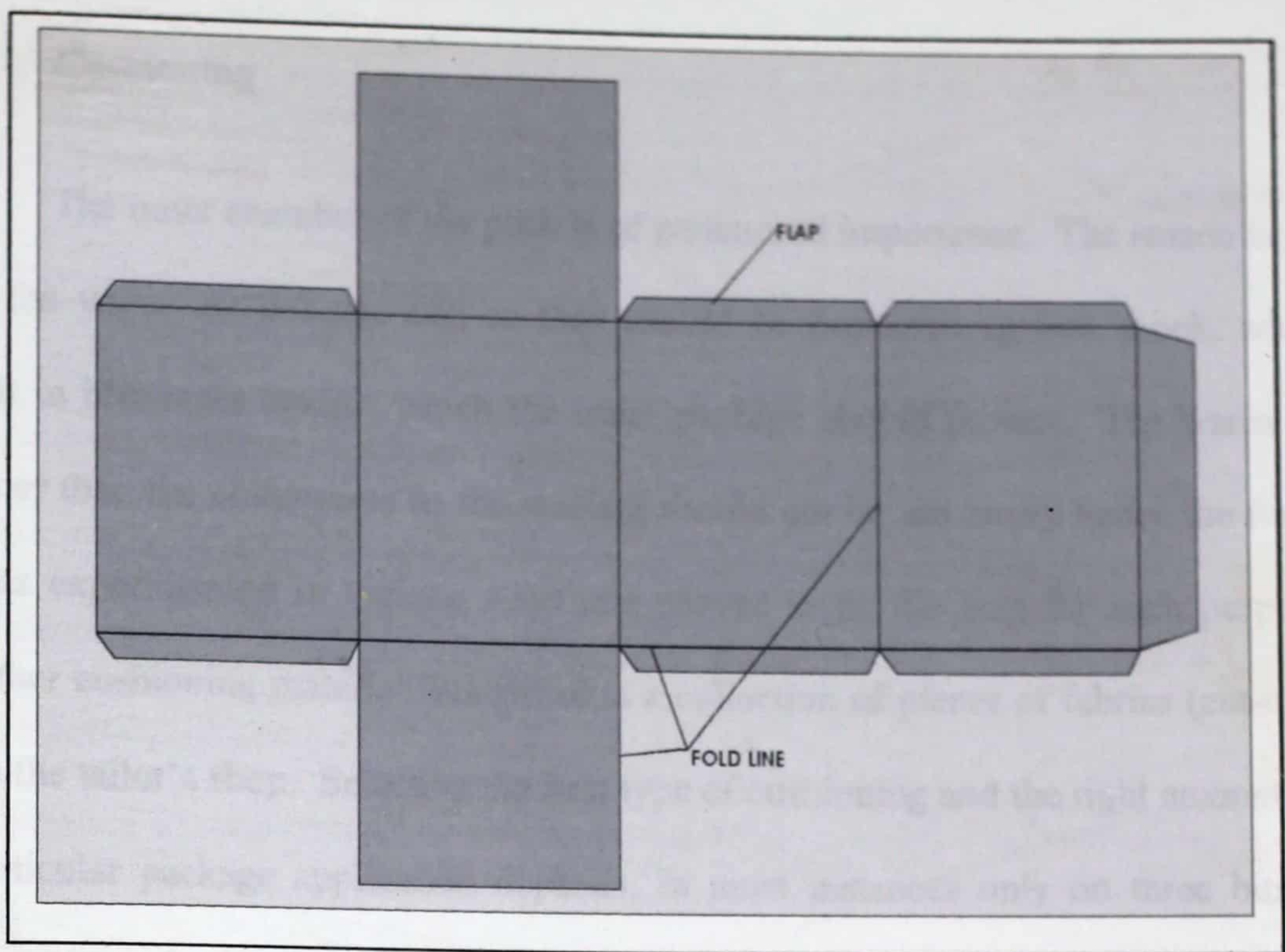


Fig. 3. The pack area marked on the cardboard

After the required measurements are made and marked out, the unwanted parts are cut out with the help of the knife and a metal rule. The folds are pressed and the ends glued with the white glue.

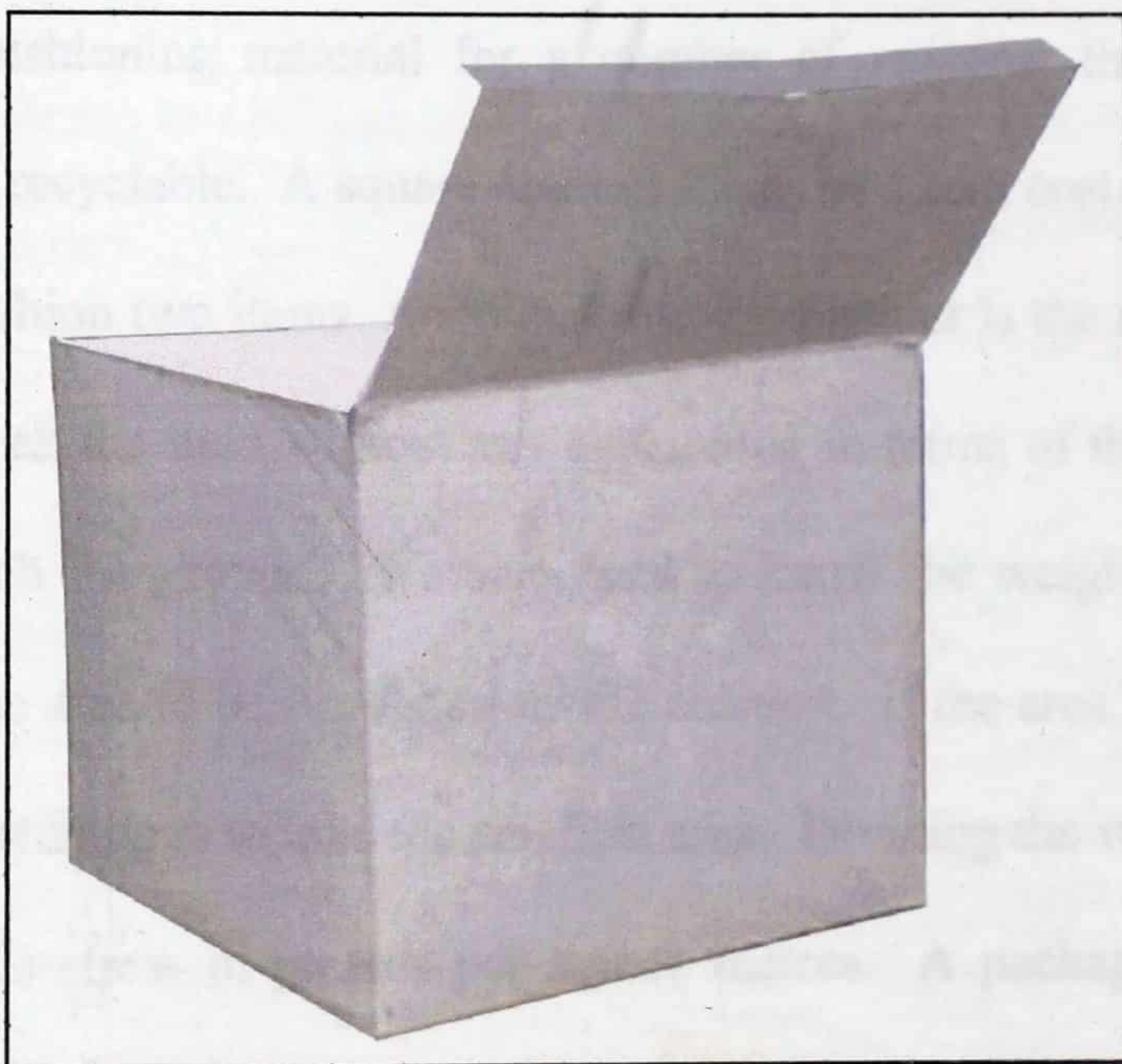


Plate 8. The glued pack

4.51 Cushioning

The inner chamber of the pack is of paramount importance. The reason being that the wares are delicate and so they should be protected against shock, which result in breakages against which the inner package should protect. The wares are heavier than the chinawares so the stuffing should not be too heavy hence the foam. It was experimented in various ways and proved to be the best for such purpose. Another cushioning material thought of is a collection of pieces of fabrics (cut-offs) from the tailor's shop. Selecting the best type of cushioning and the right amount for a particular package application depends, in most instances only on three bits of information. In the first place one must know something about the fragility of the product to be packed, secondly to consider the hazards it will be exposed to and lastly one must understand the characteristics of the cushioning materials that are available, so that a choice can be made of the most economical.

For the purpose of this project, after examining the fragility of the items and the characteristics of the cushioning materials the researcher chose the pieces of latex foam as a cushioning material for a number of reasons: that they are cheaper, available and recyclable. A square foam of 20cm by 12cm cost, ₦1,000.00 and could be used to cushion two items. Another factor to consider is the minimum drop height that could break the item without any cushioning in terms of the number of seconds it take to reach the ground. We also need to know the weight of the object being packed and the area to be supported by the cushion. If the area is not the same on all sides the safest thing is to take the smallest area. Dividing the weight by the area w/a gives the static stress in pounds per square metres. A package under 10lb can be

tossed like a basketball but a heavier unit can be raised only waist-high and then dropped without the danger of breaking.

Other points to consider include:

- the effect of abrasion of the cushioning material on the item,
- the settling of the cushioning material from repeated impacts
- resonance or repeated periodic vibrations along with harmonies which are rarely a serious problem.
- the mass of the cushioning itself, one third of the weight of the cushioning should be added to the weight of the article.
- internal damping of shock vibrations.
- temperature and humidity which may alter the protective qualities of certain materials. Plastic tends to stiffen at low temperatures and soften at elevated temperatures. With all these in mind the foam is preferable for such delicate items. Grass and paper chips could also be of help.

The size of the foam is cut to be fixed into the constructed box. It is split open and the inside scooped to suit the shape of the item after which it is put together to contain the product.

4.6 The labels

The label was designed with a computer programme called Corel Draw (Version 8). The following procedures were taken:

Stage i : Photographs of the products were taken with a digital camera.

They included (a) Flower vase (b) sugar bowl (c) mug (d) milk jug (e) tea cup.

The images were transferred onto the computer for manipulation, composition and designing.

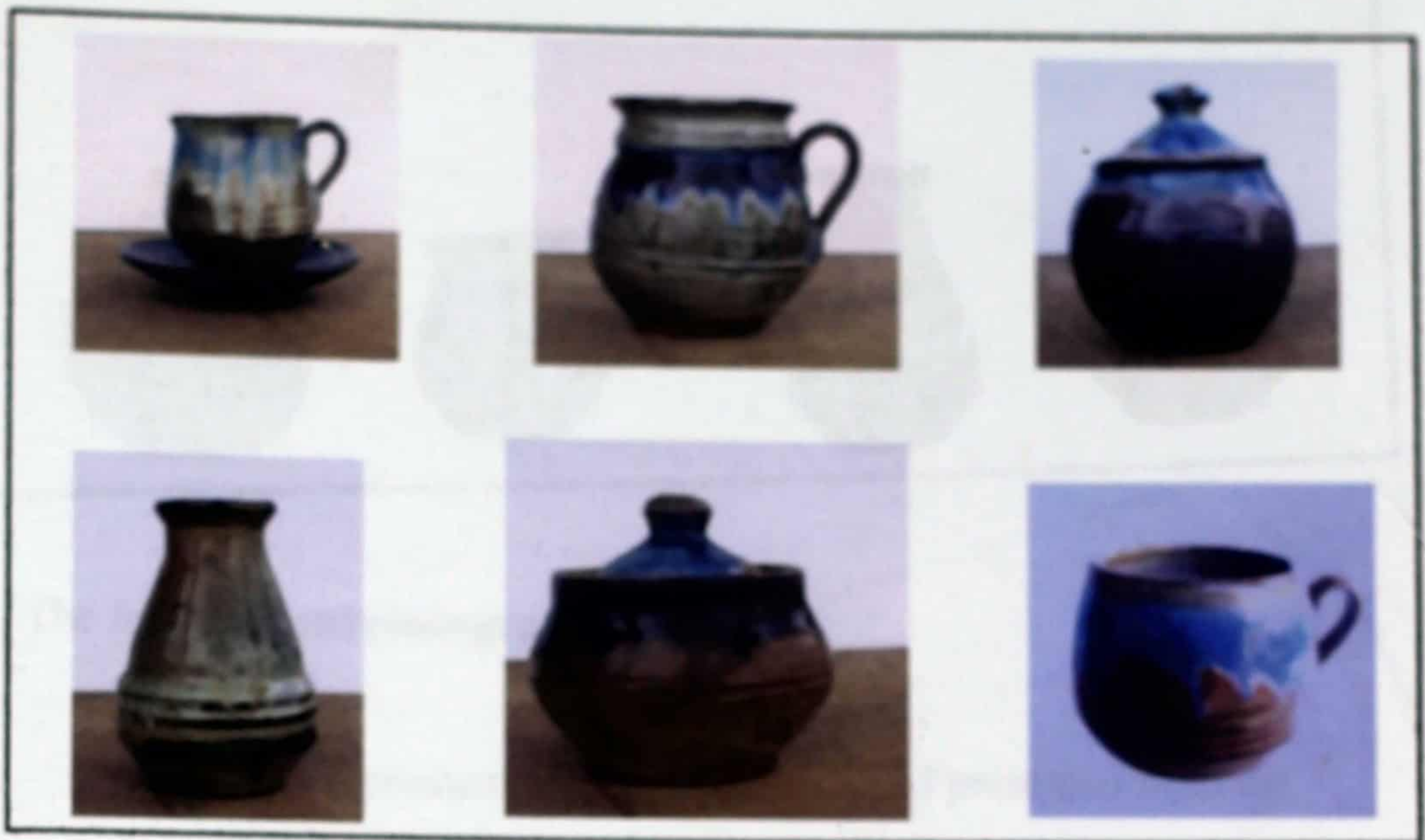


Plate 9. Photographs of selected ceramic products

Stage ii: CROPPING: The photographs of the products were cropped to focus on the image and its brightness without distraction.



Plate 10. The photographs partially cropped



Plate 11. The fully cropped photographs

Stage iii: The cropped products were manipulated and presented from the attractive angles.

Stage iv: The development of the framework was made according to the size of product. Pencil and ruler were used to mark out the dimensions on the cardboard. The flaps and the fold lines were marked with keen precision. Refer to the illustrations below:

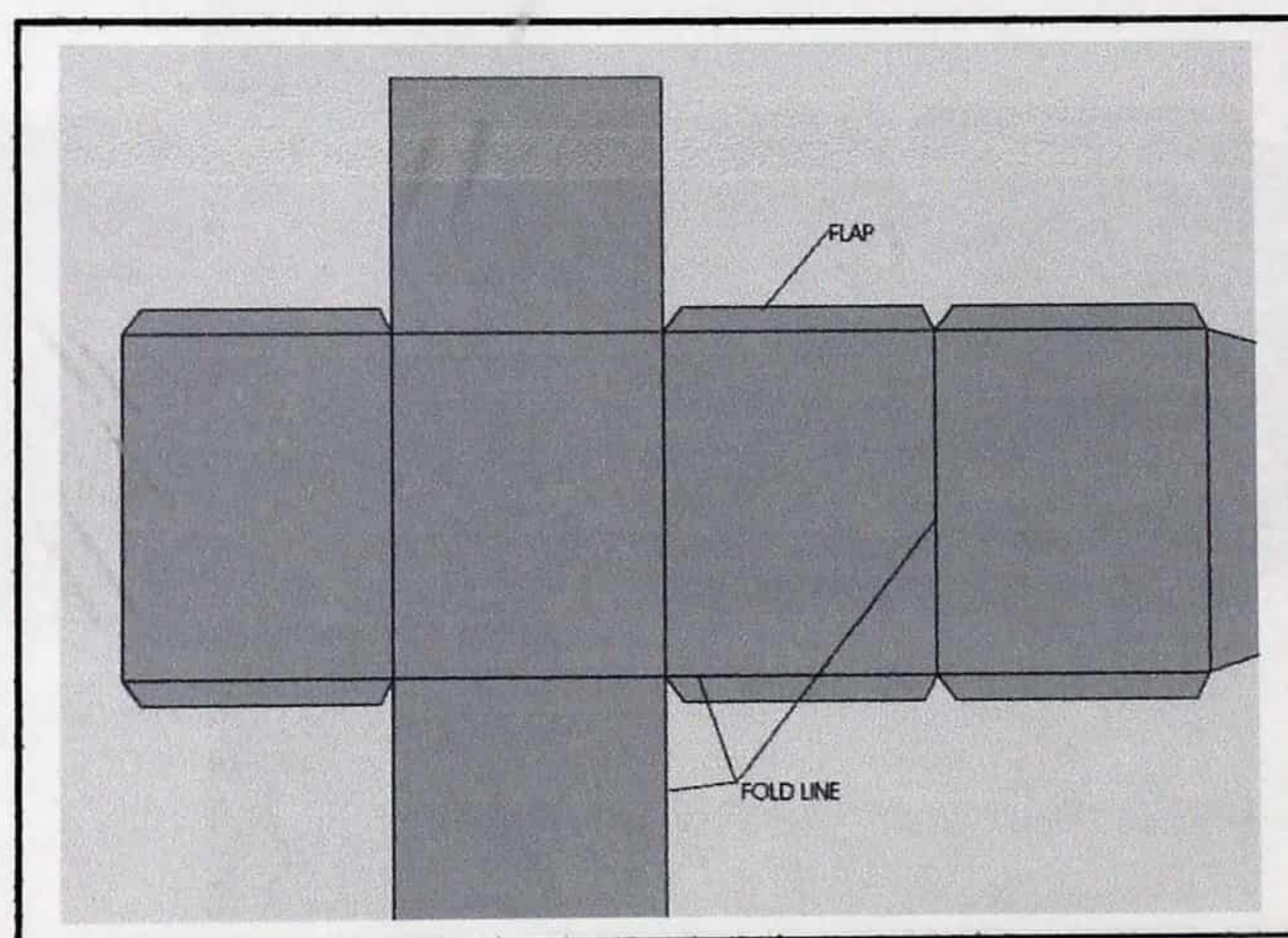


Fig. 4. The framework showing the flaps and fold lines

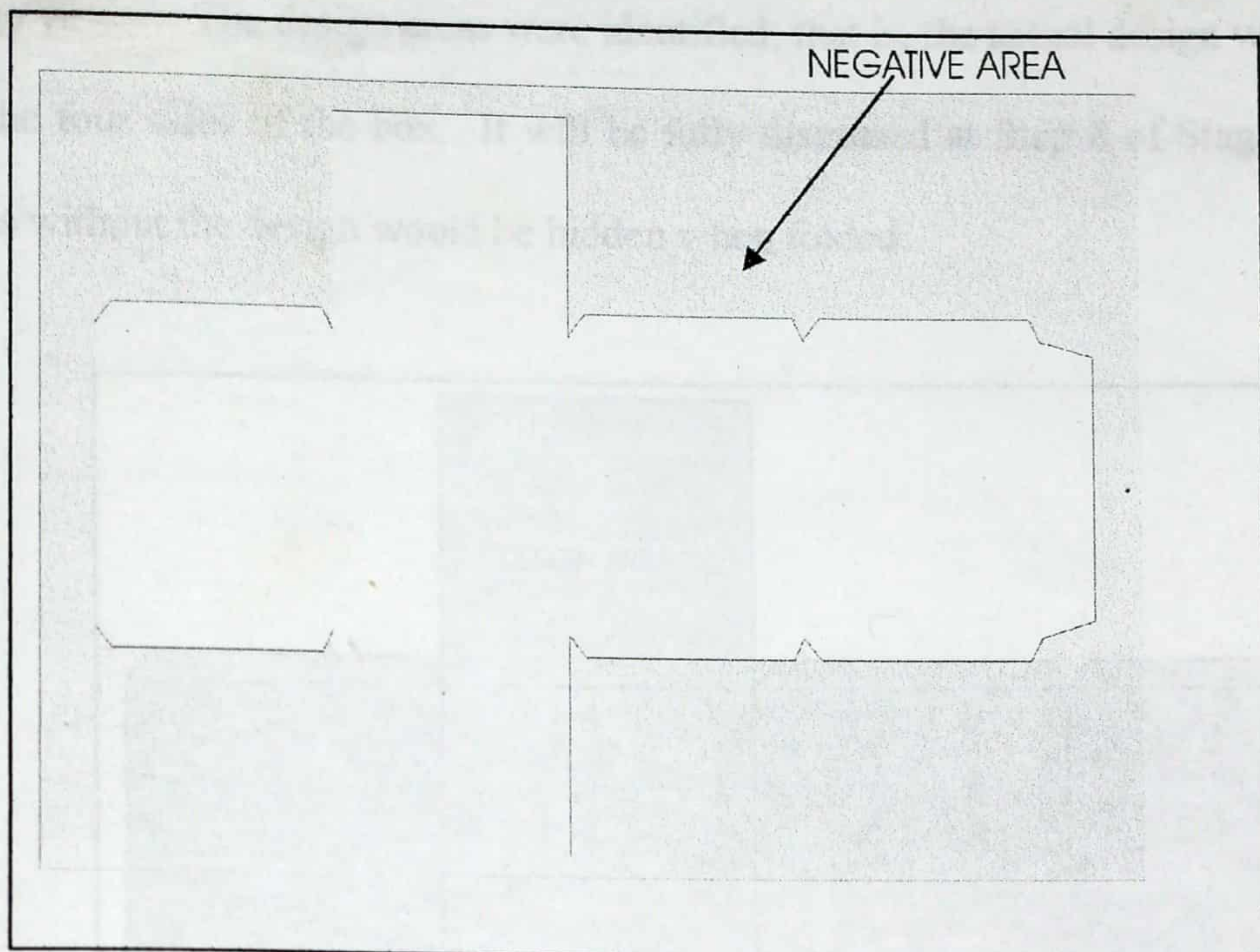


Fig. 5. Framework for the pack

Stage v: The negative areas of the design were cut out leaving the positive areas.

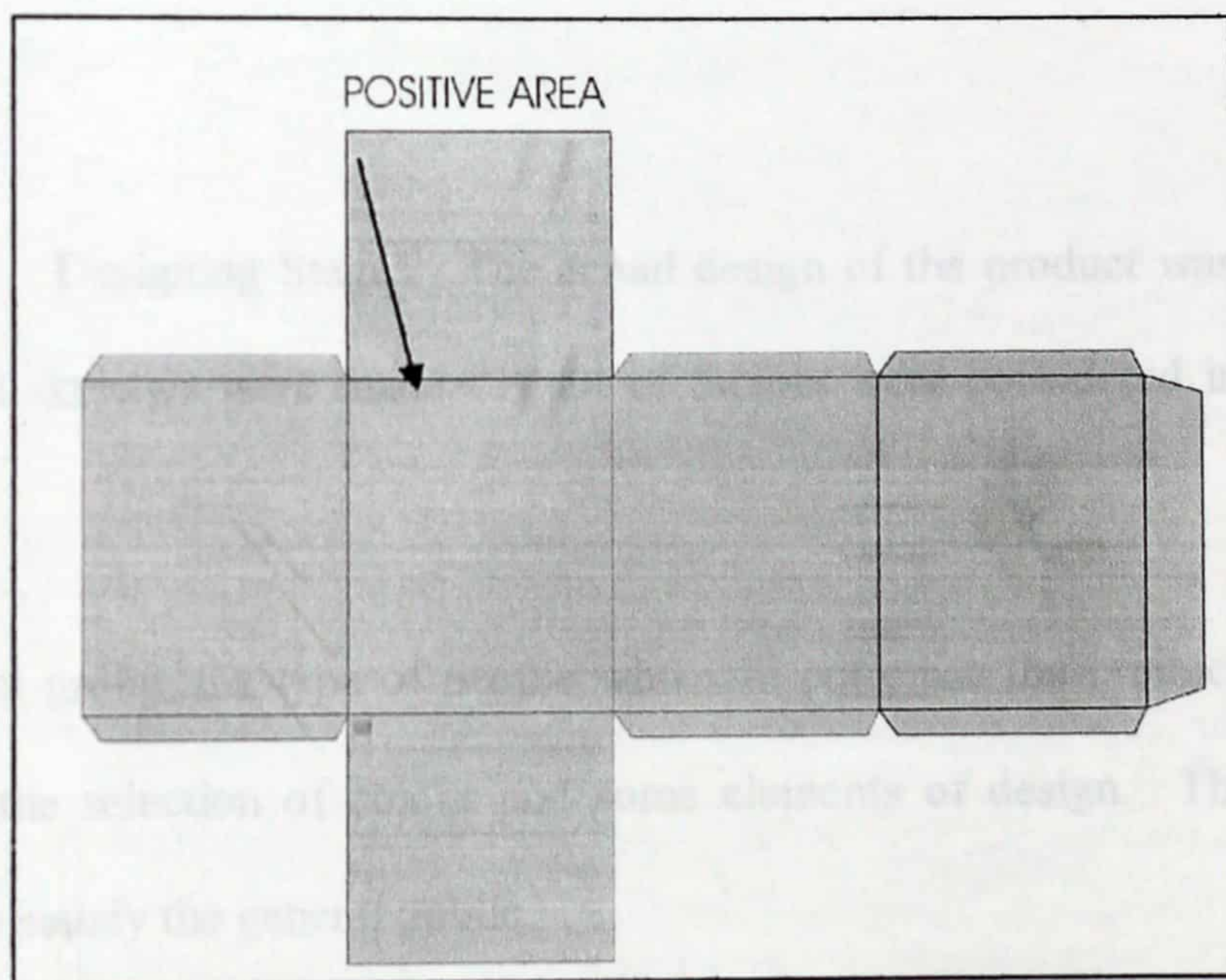


Fig. 6. The positive areas of the pack

Stage vi: The design areas were identified; that is, the actual design were placed on the four sides of the box. It will be fully discussed at Step 8 of Stage vii. The areas without the design would be hidden when folded.

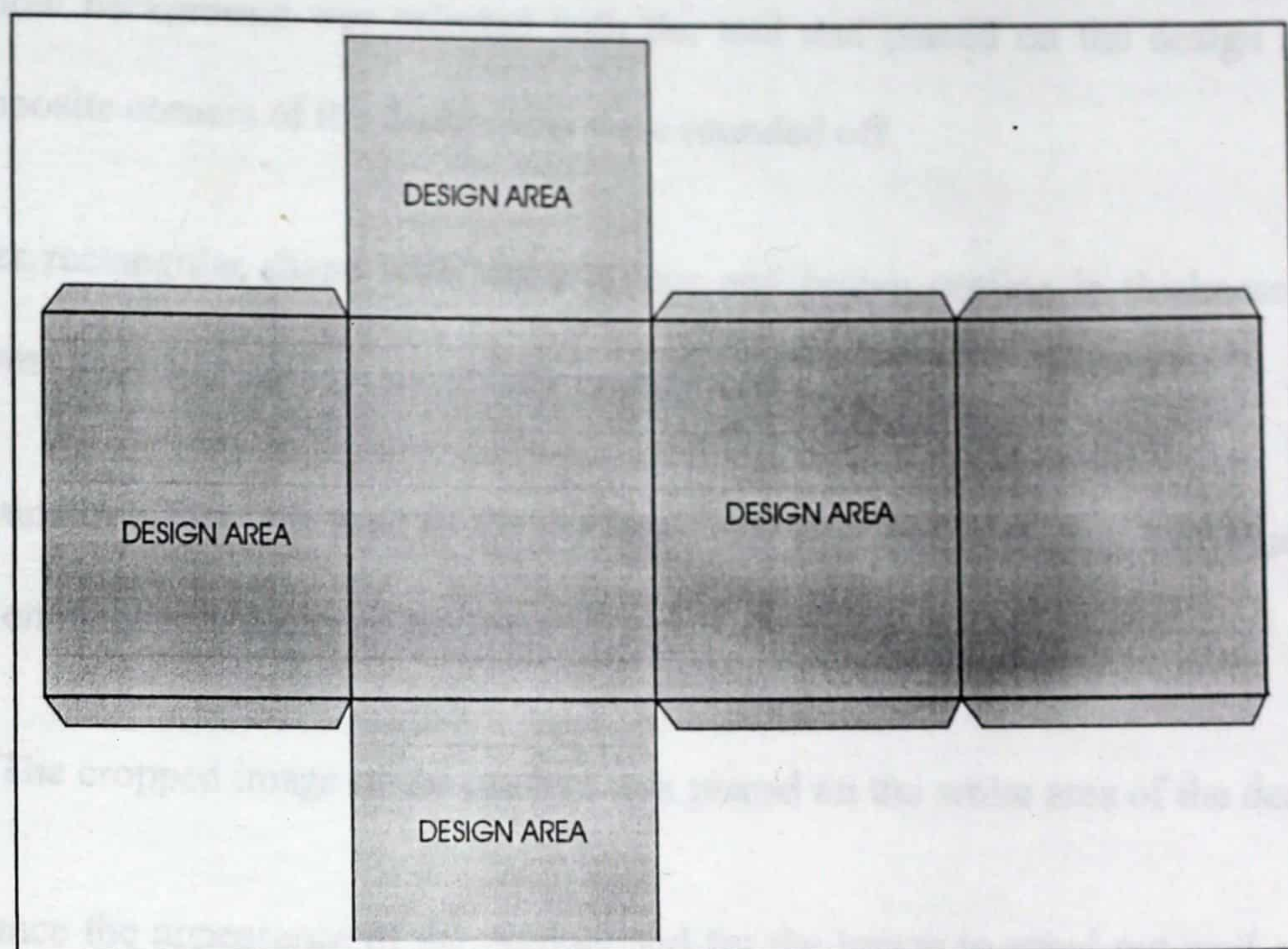


Fig. 7. The design areas

Stage vii: Designing Stages: The actual design of the product was carried out after several sketches were made. A lot of factors were considered including the following:

- the target group, the type of people who will patronise the product. This will help in the selection of colour and some elements of design. This project is meant to satisfy the general public.
- the name of the product.
- manufacturers name and address.

- net weight of the product.
- the image of the product to easily attract and inform customers as to what the pack contains.

Step 1: A yellow background was selected with the tool and placed on the design areas. Two opposite corners of the design area were rounded off.

Step 2: Another rectangular shape with white colour and brown outline in thickness of 3 points was superimposed on the yellow background.

Step 3: Blue fountain effect was used to fill the base, half way and at the top half blue was used to enhance the beauty of the work.

Step 4: The cropped image of the product was placed on the white area of the design.

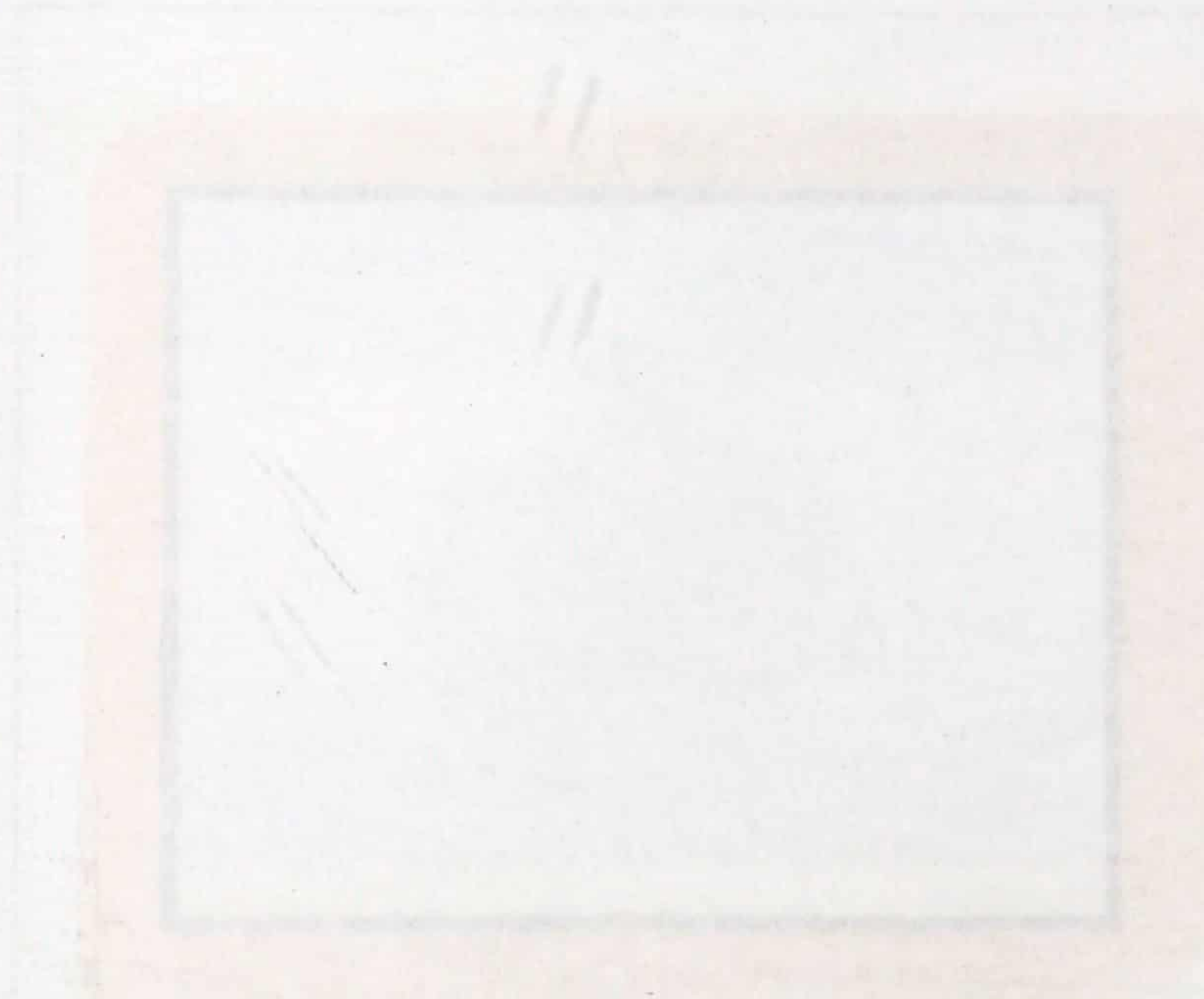
Step 5: To enhance the appearance of the product and for the image to stand out well on the design surface a soft glowing shadow was put around it.

Step 6: Some linear boarder designs of brown and blue to further enhance the package were placed at the top and bottom of the design. It is known as family appeal or identification mark. A brown line of 6 points was placed at the top, while blue and brown lines of the same point were placed at the bottom. The choice of the colours is to harmonise with the background colour.

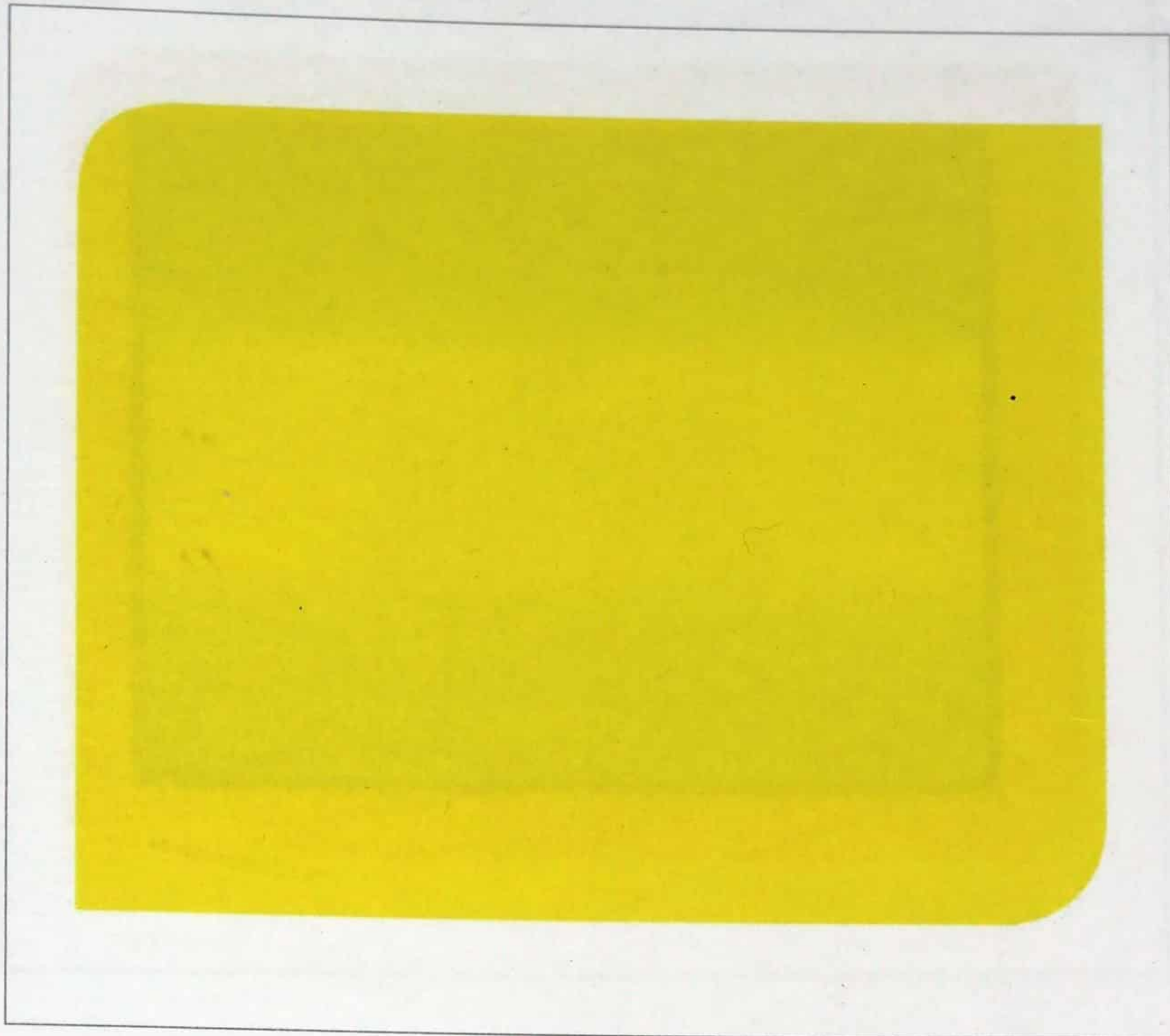
Step 7: After the colour selection, the information in a text was typed. The trademark, that is, CERAMICA was typed and a suitable font for the design was selected. The product name was typed and appropriate colour selected for the font.

The name and address of the manufacturer as well as the net weight of the product were typed in. The type of font chosen for a design must be catchy so as to attract consumers. The arrangement of the text should be made at this stage. Different colours for the font were experimented within steps 7ii, iii, iv; yellow, violet, red and black colours were tried and the final choice was the black text for the trade mark since it comes out well on the design and blends well in the colour of the background.

Step 8: The finished design was copied and pasted onto the other 5 design areas b, c, d, & e. Designed area (a) would be turned upside down at (b), (c), (d) and (e) would follow the same process. The same procedure was used for the other products with different colour schemes. Refer to the following pages for the design stages:



STEP 1



STEP 2



STEP 3



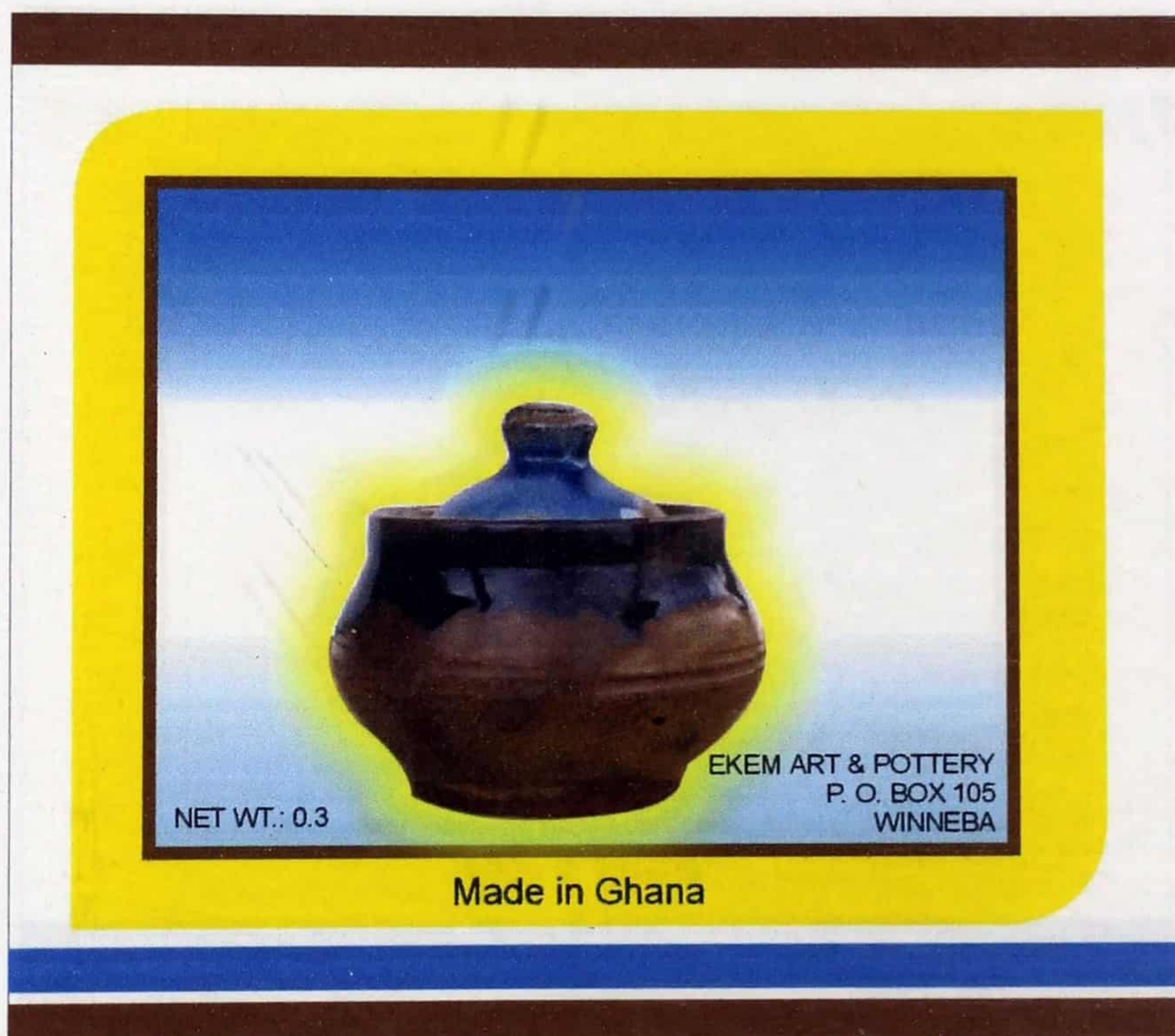
STEP 4



STEP 5



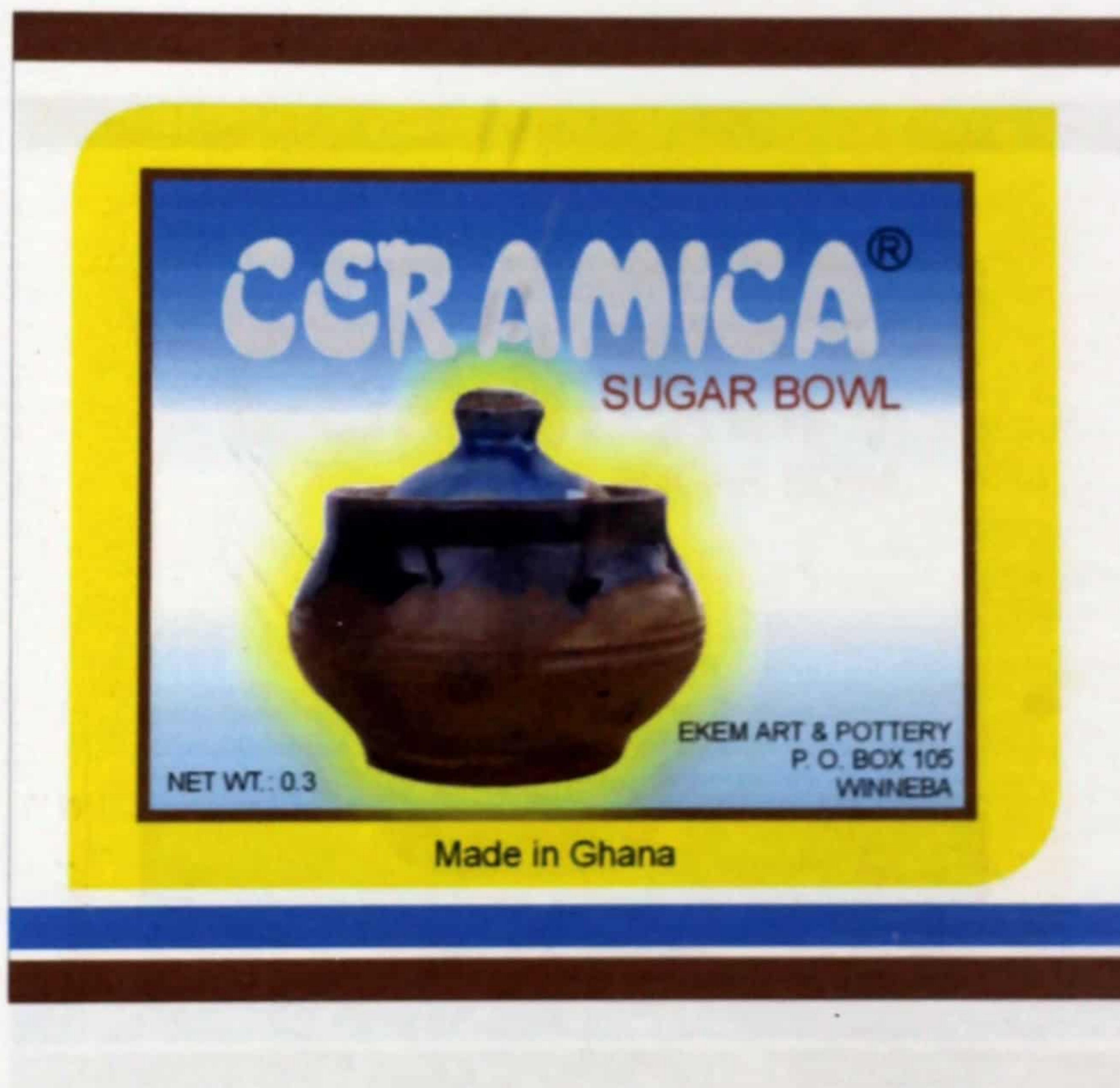
STEP 6



STEP 7 (i)



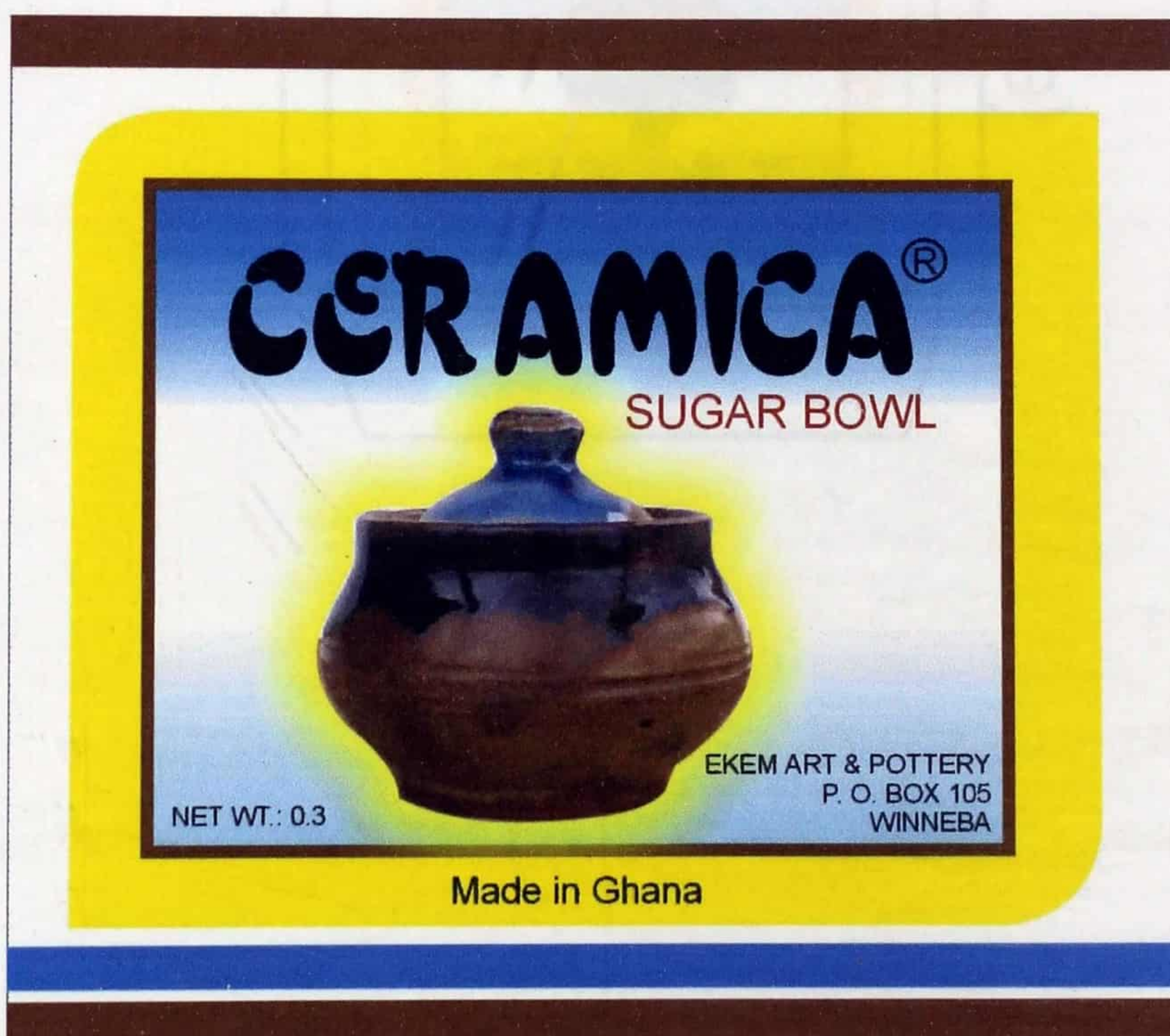
STEP 7 (ii)



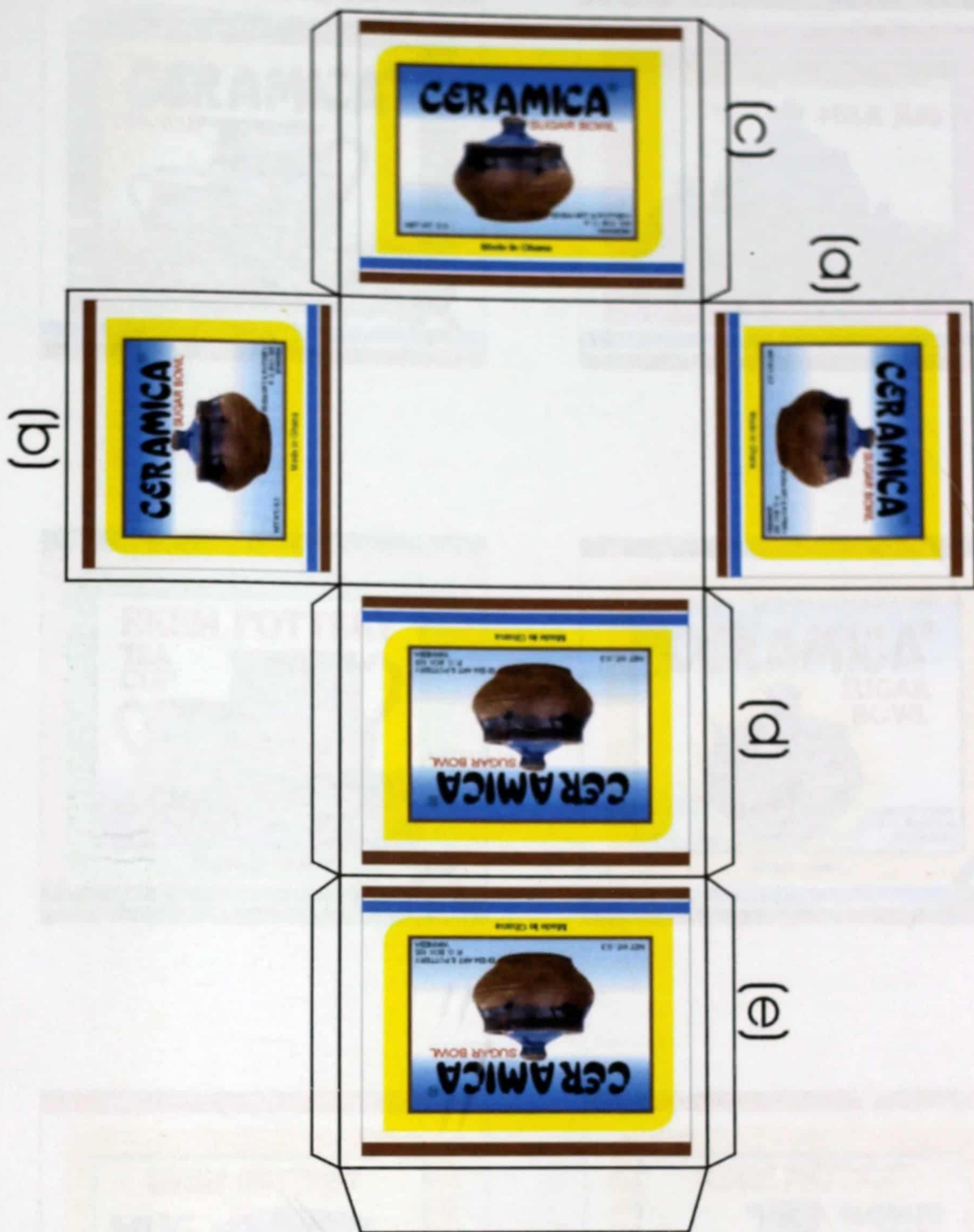
STEP 7 (iii)



STEP 7 (iv)



STEP 8



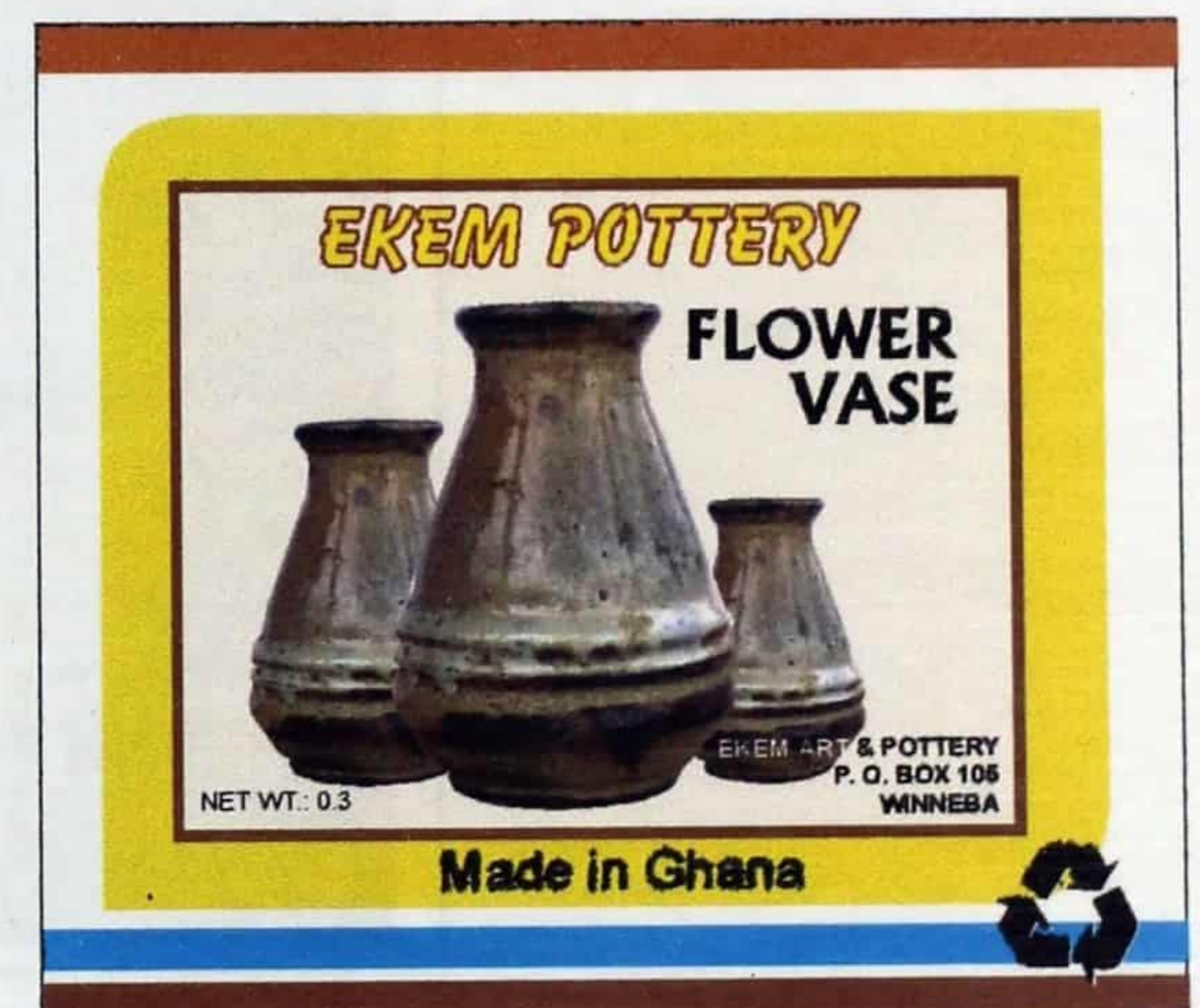
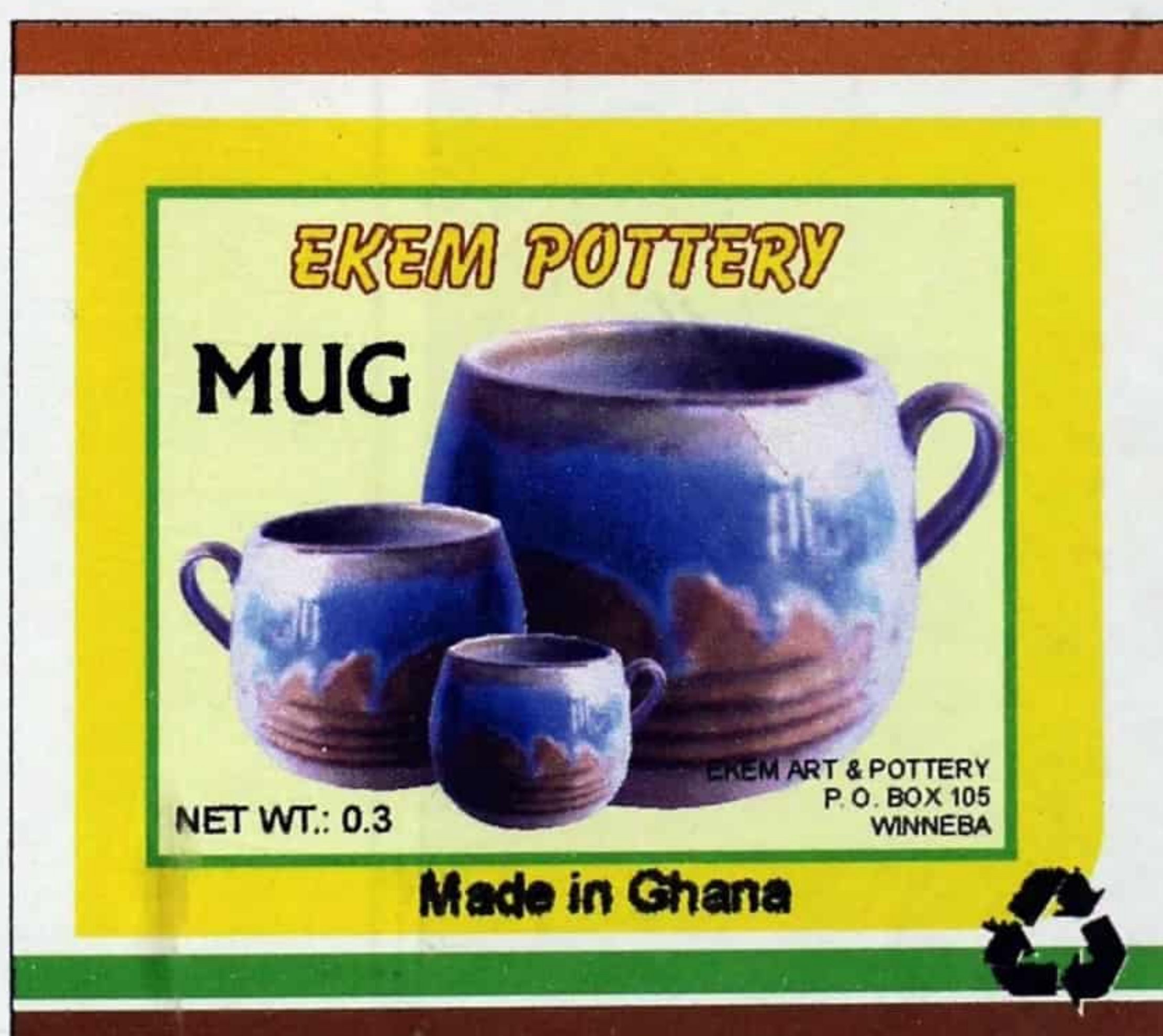
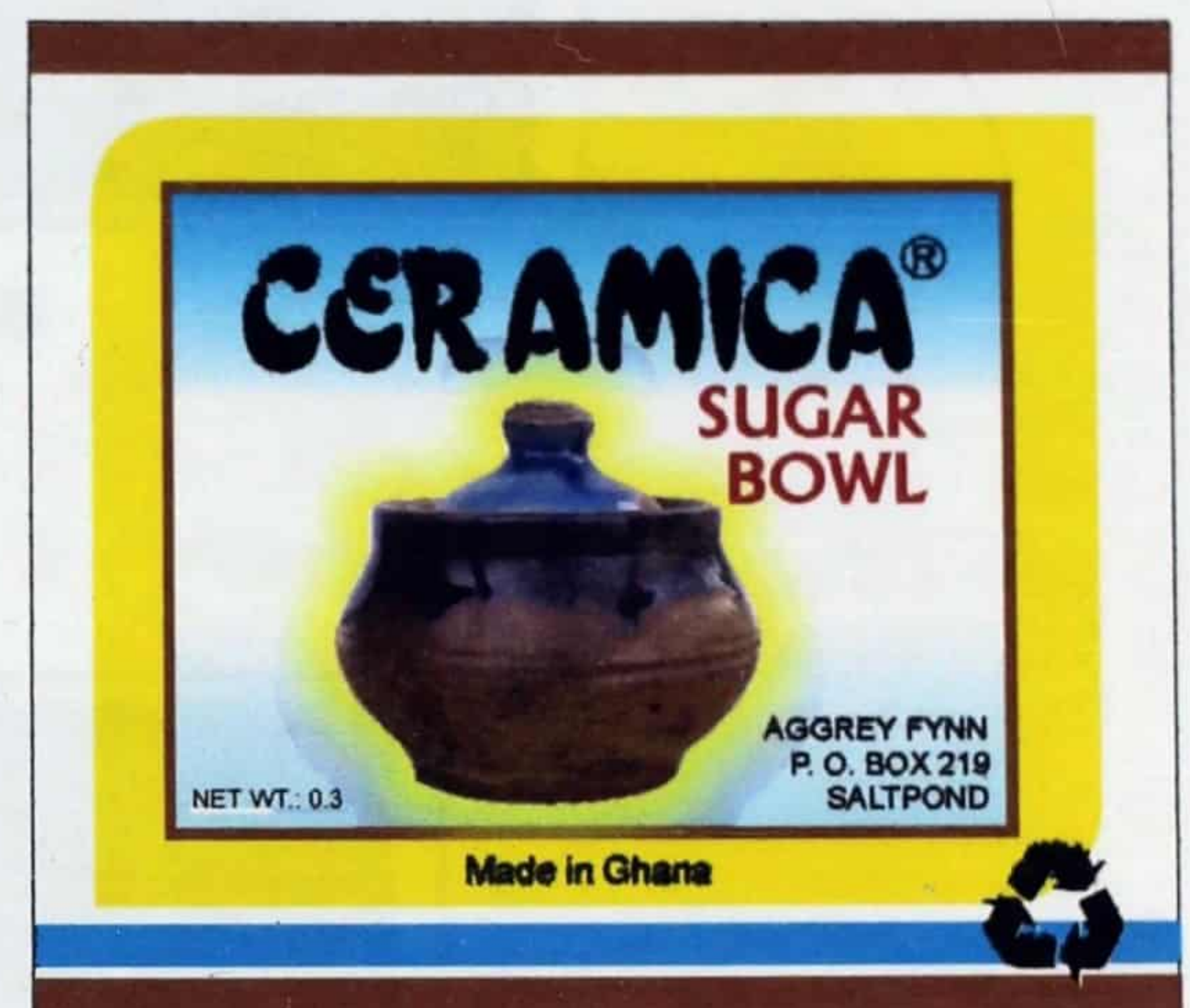
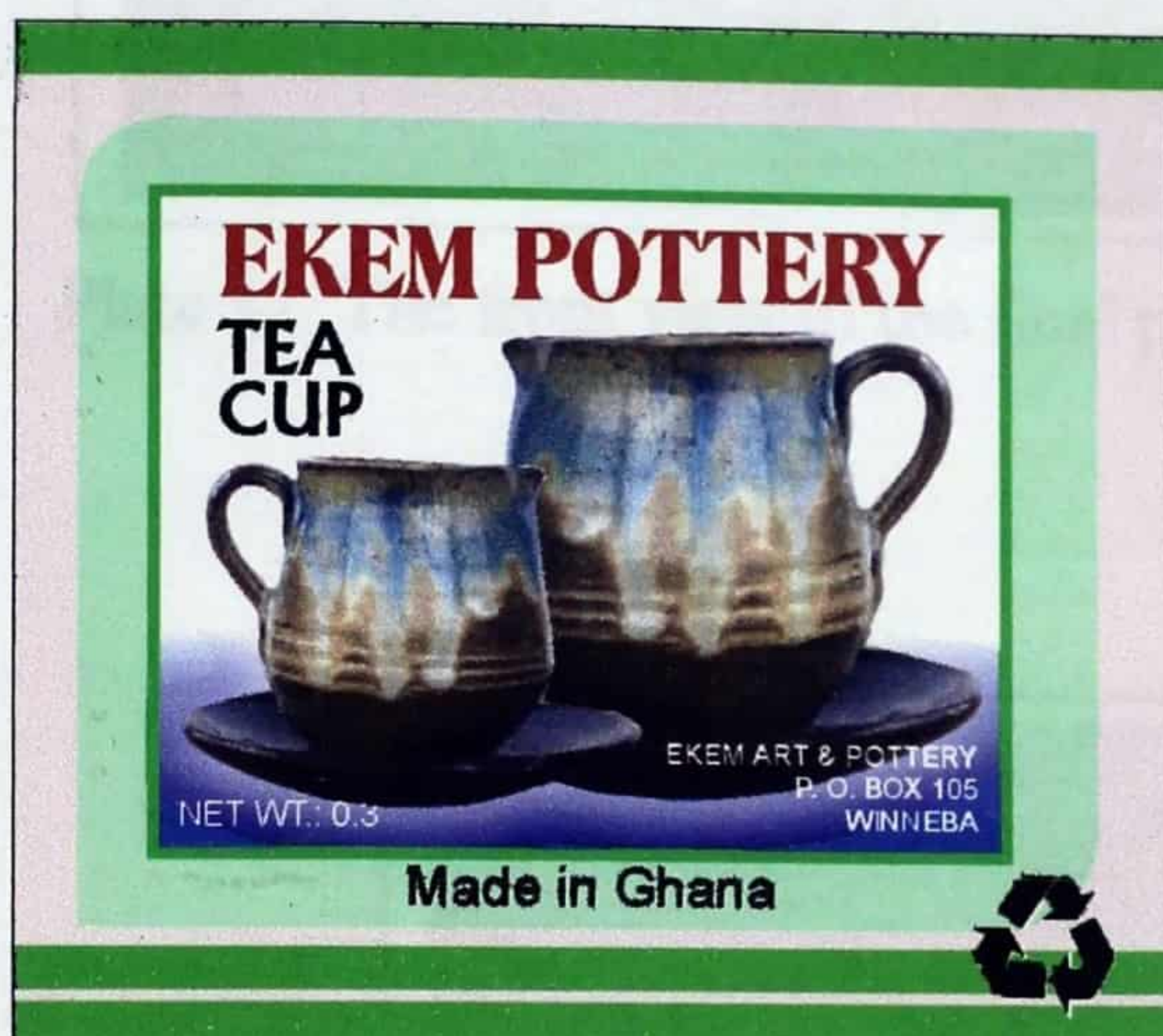
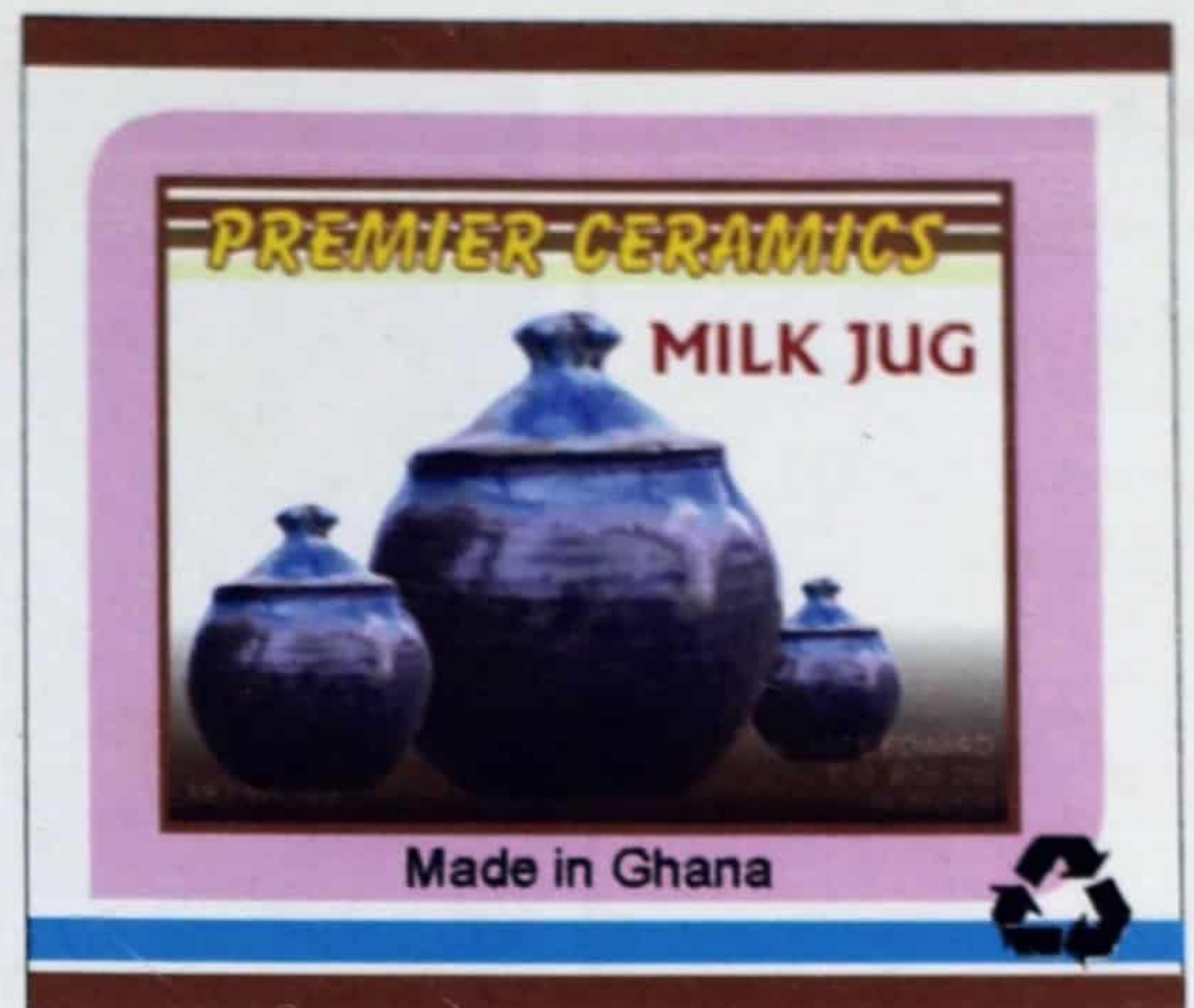


Fig. 8. The designs in various colour schemes



Plate 12. The front view of the final packaging



Plate 13. A three-quarter view of the final packaging

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

This project was carried out to solve the problem of packaging Ghanaian ceramic wares for both market appeal and for protection against breakages and damages. As a key element in the marketing mix, the benefits derived in a good package could be immense if serious attention is given to the selection of its materials and design.

Chapter two examined the concept of packaging with the view of containment, preserving, dispensing, protecting, communicating and enhancing the product. It also looked at the types of packages, packing and shipping, modern packaging materials and forms as well as products of ceramics.

Chapter three examined the general procedure for the project, which included factors to be considered before work started, while chapter four outlined the step-by-step procedure of designing packages for selected ceramic wares. Tools and materials for the construction of the pack, the construction of the packages and the designing of the label with the computer, were taken care of.

It could be deduced from the project that if appropriate packages are made for selected ceramic wares it could solve the risk of breakages that occur at the point of sales and transporting. It could also enhance the appeal of the product on the shelves and make them compete more favourably with the foreign ones at the shops.

5.2 Conclusion

The project was to construct model packages for selected Ghanaian ceramic wares for both producers and consumers to protect the wares from breakages and damages as well as enhance their relative competitiveness with foreign ceramic wares. The design had to take into consideration the types of materials available to reduce cost of production, as well as examine the technical requirements of a good package. It must be noted that there are other products of ceramics, which need to be packaged but which were not covered by the researcher and could be researched into, further by other researchers.

Practical suggestions and recommendations for further improvement have been provided below. It is hoped that this will serve as a basis for further development on package design for both local and foreign markets. The onus therefore lies mainly on small-scale industries involved in ceramic production to embrace fully the concept of quality packaging in Ghana.

5.3 Recommendations

The researcher recommends that:

1. The information on packaging should be made available to Design students, as well as the Industrial art students and Ceramic Department of the College of Art so that all their products be packaged well at least for protection if not for decoration.
2. Information provided here be made available to all commercial packaging firms in Ghana.

3. Emphasis on the construction and designing of packages must be strengthened in the packaging syllabus of the senior secondary school and the universities.
4. Graphic Design courses be introduced in the Polytechnics to include Package Designing.
5. A school of packaging should be established in Ghana to undertake a graduate course in packaging for designers in the packaging industry in collaboration with the international trade centre and its affiliates GEPC, EPA and GSB.
6. Manufacturers, and designers in printing presses and manufacturing companies should be taken through an intensive course by the Graphic Design Section of the College of Art, KNUST in packaging design and production processes.
7. The Ghana Standards Board should employ an expert in packaging to examine and recommend the right types of packaging of Ghanaian products.
8. Ceramic producers employ the services of qualified package designers to produce packages for their products and also to advise them on other packaging problems.
9. Since in Ghana, the visual design aspect of packaging is a major problem, there is the need to restructure the course content at the Graphic Design Section of the College of Art in order to include packaging design as a special programme for one semester or to include it in the curriculum for a full credit hour.

10. A full time degree course in packaging could be introduced to improve the quality of packaging for our local products. This will forestall the problem of poor finishes of labels on the local products.

11. It is also recommended that the ceramic producers conform to a standard measurement for their products so that the size and weight of a cup will be the same throughout the studios in the country. This will bring conformity in packaging ceramic products.

Finally it is recommended that more packaging books or pamphlets be written by packaging experts in the country as well as local publishers to augment the few ones written by foreign authors.

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