

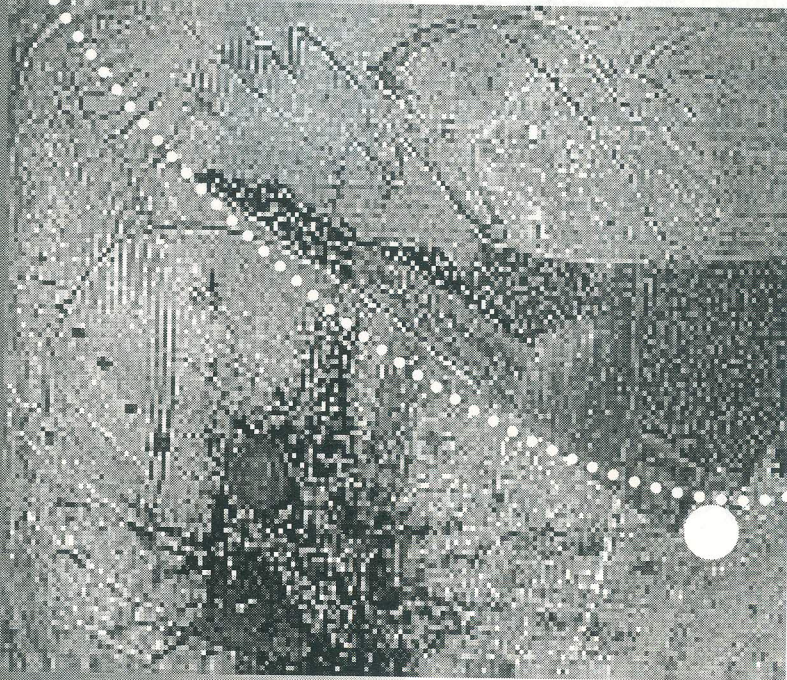
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Project by: Parag Trivedi ✓

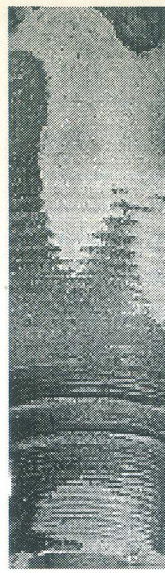
Guide: Ms. Vanmala Jain

Industrial Design Centre

IIT Bombay.



Ceramic jewellery



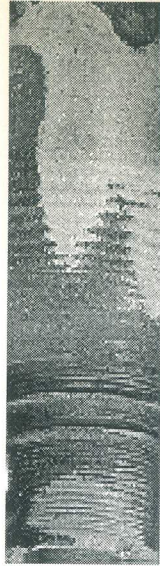
Approval Sheet

The special project entitled "**Ceramic Jewellery**"
By Parag Trivedi
is approved in the partial fulfillment of the requirement
for Masters Degree in Industrial Design of IIT Bombay.

Guide:

Vannala Jain.

Internal:



Acknowledgments

I am deeply grateful to the following for their help and advice:

My guide Ms. Vanmala Jain

Mr. Patil (Incharge Ceramic studio IDC)

Ms. Shampa Shaw (Incharge Ceramic Department,
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I am also grateful to the faculty, staff and students of IDC,
especially my classmates for their encouragements and suggestions.



Contents

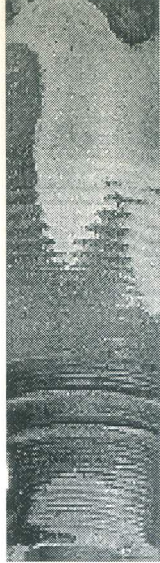
Introduction

Objective & limitations

Explorations & conclusions

Sources

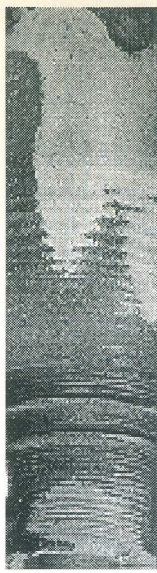
Ceramic Jewellery



Introduction

Jewellery is a decorative art and what matters is not the words that can be coined from it, but whether or not it gives pleasure to wearer and spectator.

Jewellery in India is on a magnitude that has perhaps few parallels. It seems that for every part of the human body a special ornament had to be provided, But the significant of India jewellery lies out side of its amplitude, in variety and aesthetics, It is in fact a part of Indian Culture.



Objective of project

Objective of this project was to explore the possibilities of Modern/creative jewellery.

Using combinations of non precious materials.

Limitations

Due to the vastness of the topic, Some constraints were decided for explorations like,

Ornament: Necklace

Materials : Basic material

Clay

Other materials

Glass

Bamboo

Wood

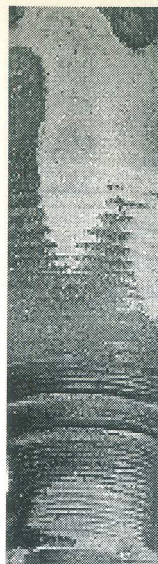
Plastic

Leather

Process Glass melting

Glazing

Assembly Different ways of assembling necklace.



Explorations with Glass

Glass is a ceramic material made from melted silica or sand. Even without profound technical knowledge possibilities of glass jewellery can be explored, like:

Glass melting

Single glass

Two pieces

Three layers

Wire impression

Attaching glass to clay

Single glass

Transparent Glass piece was cut in to desired shape.

Kept in furnace for 18hrs. at 1050deg. cel. (max) .

Result: Glass become translucent with rounded edges.

In the above experiment, Impression of wire can be obtained on glass, by keeping piece of flat wire in desired pattern.

Two glass pieces

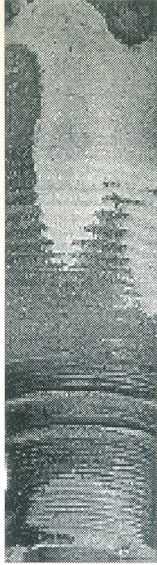
Two identical, translucent, brown glass pieces (one above another) were kept in furnace.

One 'U' shaped Nicrome (high temp resistance.) wire is placed in between, for hanging.

Result: Both glasses were fused and stick to each other.

Transparency reduced and edges became round.

Nicrome wire stuck to the glass pieces.



Three layers

Two transparent glasses with small pieces of colored glass in between , placed in furnace for 18 hrs. at 1050 deg.cel.

Result: All glass pieces stick to each other.

Outer pieces became translucent with rounded edges.

Attaching glass to clay

Glass in crushed form, sprayed on the pieces of clay.

Kept in furnace for 900deg cel. for 18hrs.

Result: Molten glass stuck to the clay.

Explorations with Wood and clay

Oval is selected as basic form in wood for pendant

Small piece is cut from oval .Using that piece as basic unit similar shaped pieces were made in clay to form the necklace.

Three-four experiments were done, using the same principle.

Assembling

Assembling is the most important part of jewellery design.

Steps involved in the process of assembling are:

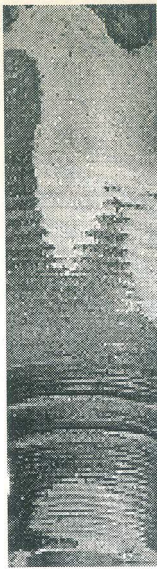
The finding and selection of interesting materials.

The arrangement and grouping of the materials.

The joining/fastening and finishing of materials.

Each of these steps offers numerous opportunity for new design.

keeping the materials same lots of variation were tried out.



Glaze

Glaze is a vitreous coating adhering to the surface of ceramic. It improves the aesthetic effect and Mechanical strength of ceramic. Unless cracked they are impervious to liquids.

The perfectly smooth glaze prevent dirt from clinging.

Generally glazes are glossy although there is so called matte glazes.

Glaze is made by mixing together a number of finely ground minerals and earth minerals.

These are mixed with a vehicle (water) and a gum that act as binder to hold the mixture in a place.

Every glaze has three main ingredient namely :

1. Glass forming substance.
2. Alumina to give the glaze body, and make it stay on the ware.
3. A flux , a melting agent to make all the ingredient melt and fuse together.

In addition to the three main ingredients listed above, glazes require ingredient to provide colour the oxide of the metals. Like Copper, Cobalt, Manganese etc.

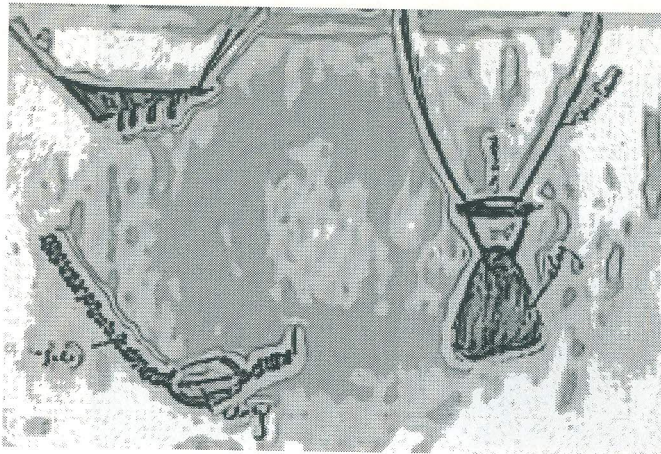
Ingredients can be added to glazes for special effects- Tin and Zirconium to make them opaque, rutile for crystals, ilmenite for specks.

Glazes are usually classified according to the flux they contain, like Lead glazes Alkaline glazes, Feld spathic.

Applying Glaze

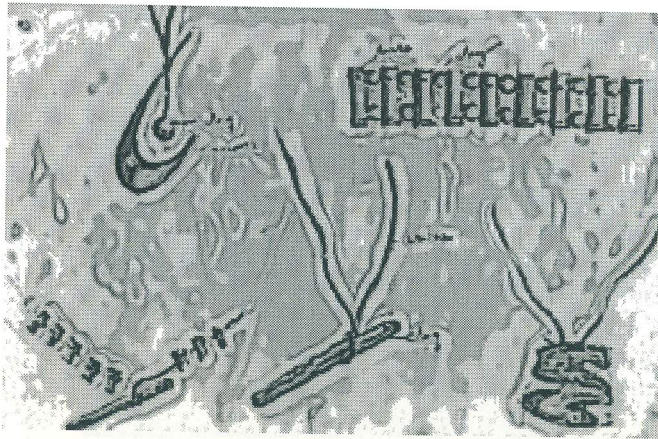
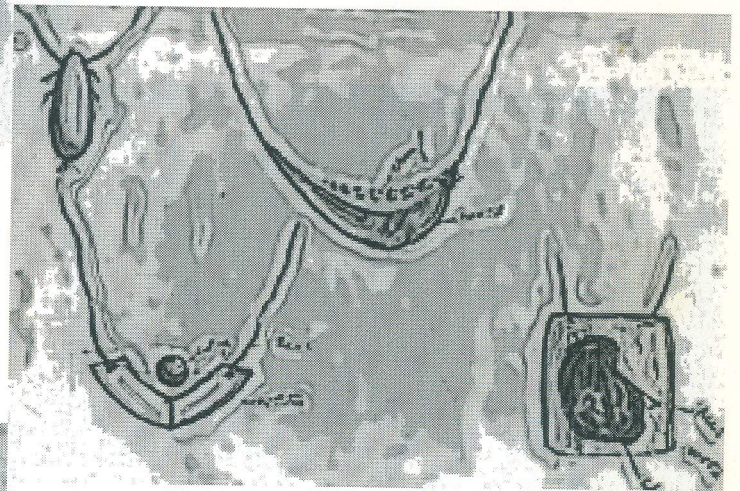
- ◆Dipping: the simplest way of putting glaze on a bisqued piece is by dipping.
- ◆Brushing: May be painted on piece with soft brush.
- ◆Sponging: Can be applied with soft sponge.
- ◆Spraying: The most satisfactory way to get even coat.



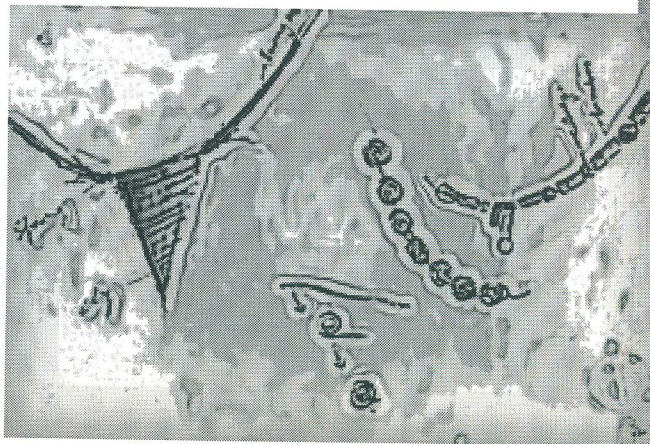
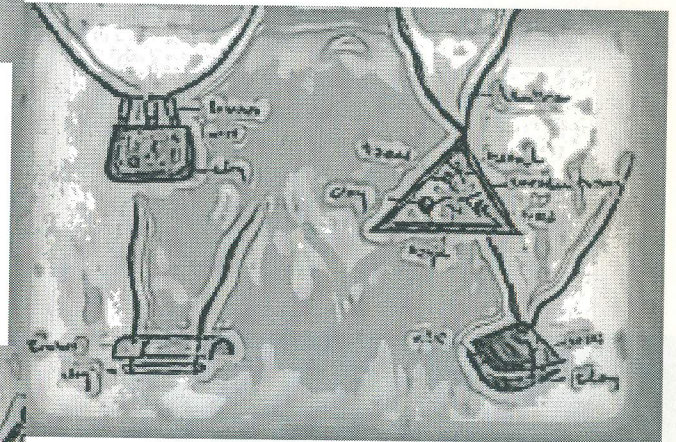
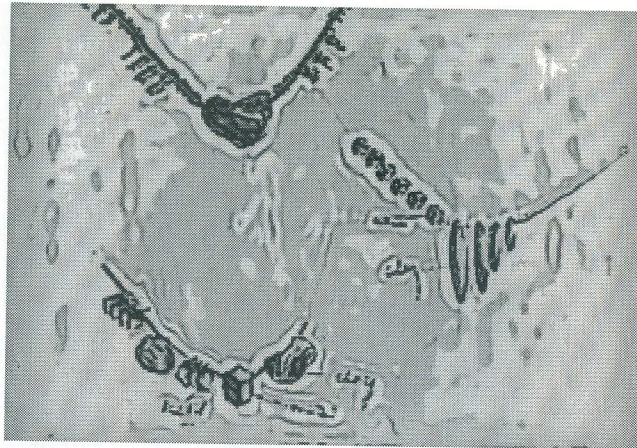


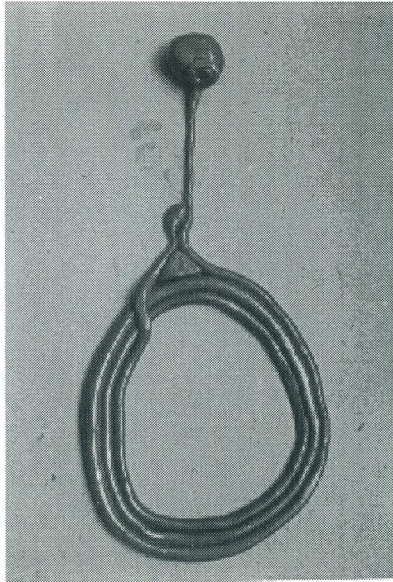
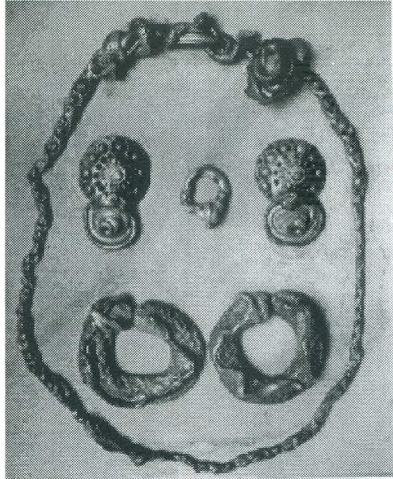
Explorations

In the initial stage, Several Sketches were made, considering the properties and combination of materials



Explorations

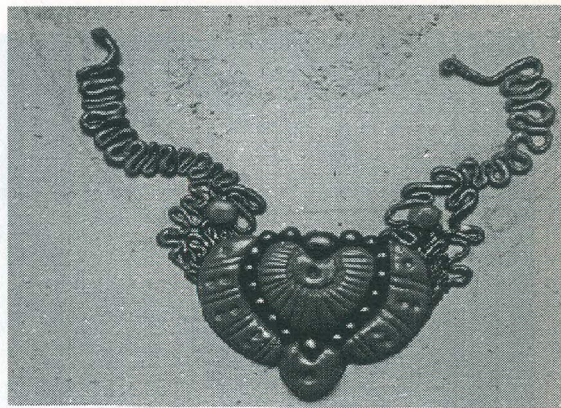
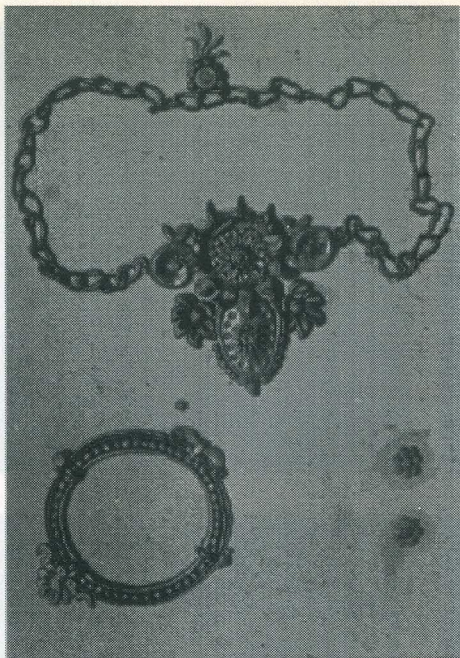
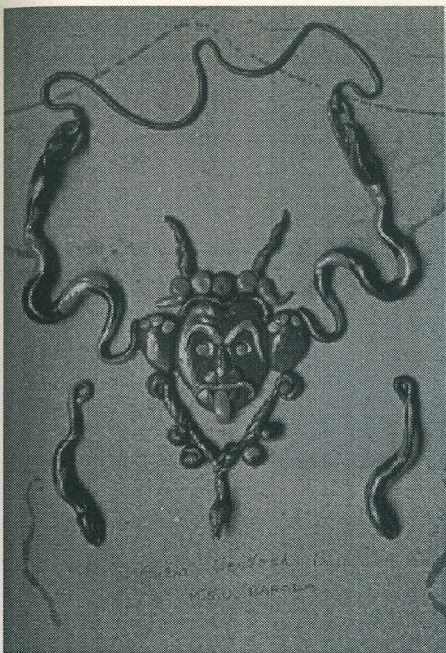


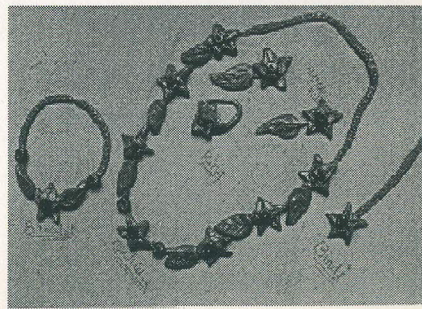
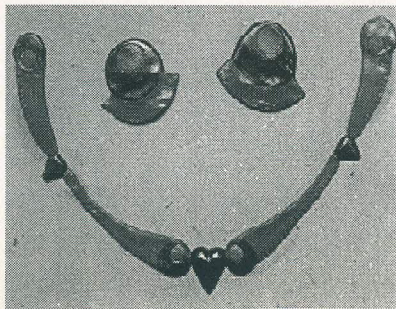
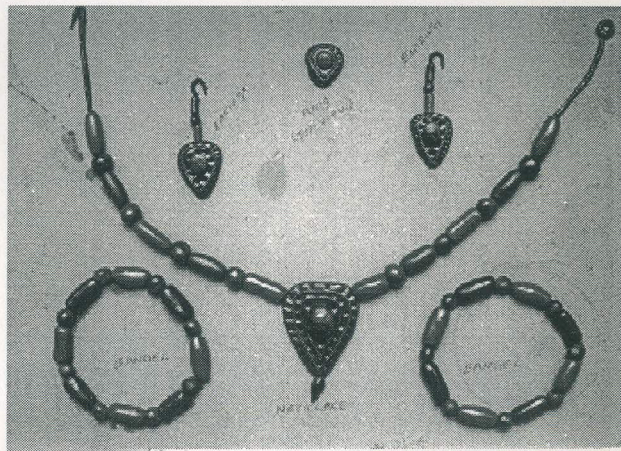
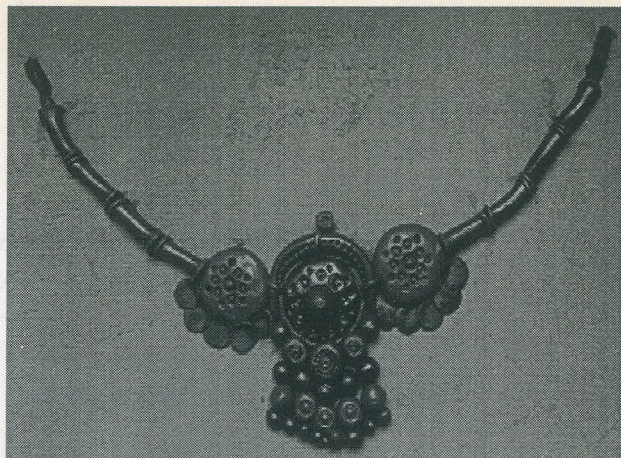
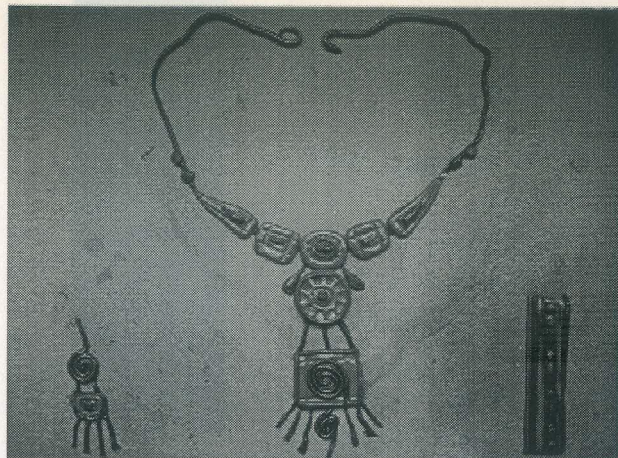


Clay Jewellery

Some samples of Clay jewellery were collected during the project. Photographs shown here are student's work, from different Art Schools of India.









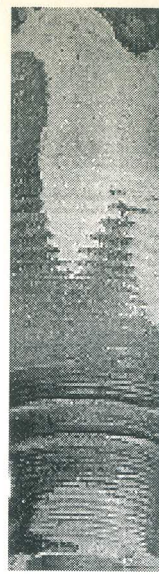
The market

Ceramic jewellery has enough market potential.

Such kind of jewellery is very popular among young generation.

It can be merchandise through:

- ◆ Contemporary Art and Craft centre
- ◆ Exclusive exhibitions
- ◆ Fairs.



Sources

Books:

The New Jewellery

Published by: Thames and Hudson 1986.

Author: Peter Dormer and Ralph Turner

Jewellery in easy steps

Published by: Studio Vista, London 1977

Author: Patti Clarke

Art in craft making

Published by: Van Nostrand Reinhold company 1974

Author: Carolyn S. Reinhold

Salt Glazed ceramic

Published by: Waston Gupthill publications/ Newyork

Pitman publishing/ London 1977

Author: Jack Troy