CONVERSATIONS WITH CLAY

WHY POTTERY?

- Start: Workshop at IDC and summer internship in studio pottery.
- State of mind, almost an obsession.
- Pottery as a 3D canvas for expression.
- Inward journey, an extension of being.
- Uncertainty of results and a promise of surprise every time.
- The craft of the hand over mind & machine.
- Decipher its visual language …and build my own.

Pottery workshop at IDC

Pottery workshop at IDC

Summer internship at Studio 78, Noida

GOALS

- To demonstrate the ability to create a set of identical pots to the extent to which the effortless ease of production pottery has been internalized.
- To evolve my own aesthetics of form and glazing.
- To develop a clarity with regards to repositioning of a craft.
- To explore pot-making.
- To follow the bliss.

VISITS TO POTTERS

- Meena Vohra, Noida
- Kavita Gupta, Mumbai
- Kumbharwada, Mumbai
- Chinhat, Lucknow
- Pandits, Mumbai

Meena Vohra at the studio

Potters at Kumbharwada, Mumbai

Haneef’s father and Bhimji’s studio at Kumbharwada, Mumbai

Potters kneading clay at Kumbharwada, Mumbai

Upla firing (bhatti) at Chinhat, Lucknow

TRADITIONAL & STUDIO POTTERS

- Traditional local potters:
  Usually work as a community,
  Mass produce pottery (wheelwork & slip-cast),
  Identical & need based, less experimental,
  Production includes matkas, toys, dolls, diyas ,
  Usually work with locally available clay & don't glaze at all.

- Studio potters:
  Work alone or in small groups,
  Create unique items & pottery in small quantities,
  Also experiment with non functional/ sculptural pottery,
  Choose to call themselves ceramic artists,
  Experiment with glazes and types of clay.

STUDIO & WORK

- Equipment: Wheels, glazes, kilns, buckets full of clay, tools, showcase shelves.
- Activities: Sorting things out, recycling clay, making test tiles, preparing glazes, allocating space for various stages of pots and cleaning up the studio.
- Initial pieces: Dissected & chucked, for learning and practice.
- Noticeably, the contours got sharper, the walls thinner, the base better trimmed, the foot-ring more defined and the effort more patient.
- Form restriction: Cylinders (with minor variations), cups and bowls.
- Objective: Production pottery; improvising the skill.

Ceramics studio at IDC

Figuring out the boxes and their contents

THROWING

- Clay: Ready to use (consists of china clay, ball clay, potash feldspar, silica and than clay).
- Wedging: Primary activity (to remove trapped air) and the most important one too.
- If wedging is done well, centering is almost automatic and throwing effortless.
- Ergonomic issue with the smaller wheel, difficult sitting-working posture.

Form explorations

Cylinders with variations

Bowl

Bowl

My first teacup

BISQUE FIRING

- The first time the pots go through high temperature heating, vitrification occurs.
- Usually in electric kiln but gas kiln can also be used.
- Oxidation firing is the only type possible in the electric kiln.
- The doors are quite thick and use IFB (insulating fire bricks) that are porous, light, have high insulation value and are easy to handle.
- Most modern electric kilns are equipped with electronic shut off devices to monitor the firing process.
- Firing is programmed to ramps (heat rise & durations) and soaking.
- Full firing cycle lasts 9 hours.
- Bisque firing temperature for stoneware is 850-900 ^{o}C

Electric kiln

Bisque fired pots

Bisque fired pots

GLAZES

- Glazes are a type of glass that is especially made to stick onto ceramic surfaces.
- In a fully matured clay body, clay and glass fuse to make the pot impervious to water.
- Glazes provide strength, color, finish and impermeability.
- Composition:

  Silica, the glass former: It is a major component of raw clay, introduced as silica oxide, flint, sand.

  Fluxes, the melting agents: These lower the melting point of silica. Eg. Feldspar.

  Alumina, the refractory: Used in almost all glazes as stiffening agent, allowing glazes to stick to a pot's vertical surface without running off when it has melted (alters viscosity). Eg. China clay.

  Colorants: Colorants are added to glazes to produce a wide range of hues. Eg. Metal oxides.

PROPERTIES

- Color: Hue is affected by composition of the glaze, firing temperature and type of firing.

  The amount of oxygen present in the kiln can drastically change a glaze's color, resulting in 2 types of firing: oxidation and reduction.

  Electric kilns are naturally in an oxidation atmosphere.

  A gas kiln entering reduction at too low a temperature can result in clay and glaze defects.

- Opacity: Opacifiers reduce transparency. Eg. Tin oxide, zirconium silicate, titanium dioxide.

- Surface quality: Glazes can have satiny finish or a matt surface. Eg. Barium carbonate, strontium carbonate, alumina hydrate, lithium carbonate and titanium dioxide.

Test tiles for glaze experiments

Dipping and pouring glazes on teacups (manganese and clear)

GLAZE FIRING

- Usually done in natural gas updraft kiln.
- Natural gas is clean, efficient, easy to control, environmentally desirable.
- The kiln has to be started manually with low temperature ramp. It is made of heavy angle iron and coarse SDF (super duty firebrick), backed with fiber blanket and insulating ceramic fiberboard. Pyrometer is used to note temperature.
- Critical temperatures:
  100 ^{o}C : Water boils.
  100-200 ^{o}C : Clays lose 'mechanical water'.
  374 ^{o}C : 'Critical' temperature of water. Chemically combined water leaves clay.
  573 ^{o}C : 'Quartz inversion'.
  800 ^{o}C : All organic matter in clay burns out by this temperature (carbon and sulfur).
  800-1000 ^{o}C : The clay particles begin to fuse (sintering).
  1000-1160 ^{o}C : Feldspars begin to melt.
  1250-1285 ^{o}C : Stoneware clays vitrify.

CARE

- Soaking: The kiln is kept at the same temperature for a period of time; glazes smooth out.
- Cooling: There is another event that clay goes through, this time as it cools; sudden shrinkage of cristobalite, a crystalline form of silica, as it cools past 220 ^{o}C.
- Reasons for glaze defects: Underfiring and overfiring, application problems, lack of adhesion, glaze-clay body fit (different coefficients of expansion and the glaze may craze), kiln accidents or power interruptions.
- Glazes do not always come out the way we expect or hope they will. There are happy surprises as well as real frustration sometimes.

Glazed pots in the gas kiln

Glazed teacups (manganese and clear)

Cobalt and white matt glaze

Cobalt and clear glaze

Cobalt and clear glaze

Manganese, white matt and clear glaze

Red iron oxide and clear glaze

Pre-mixed aqua lustre glaze with manganese and cobalt

Copper, white matt and clear glaze

Copper and clear glaze

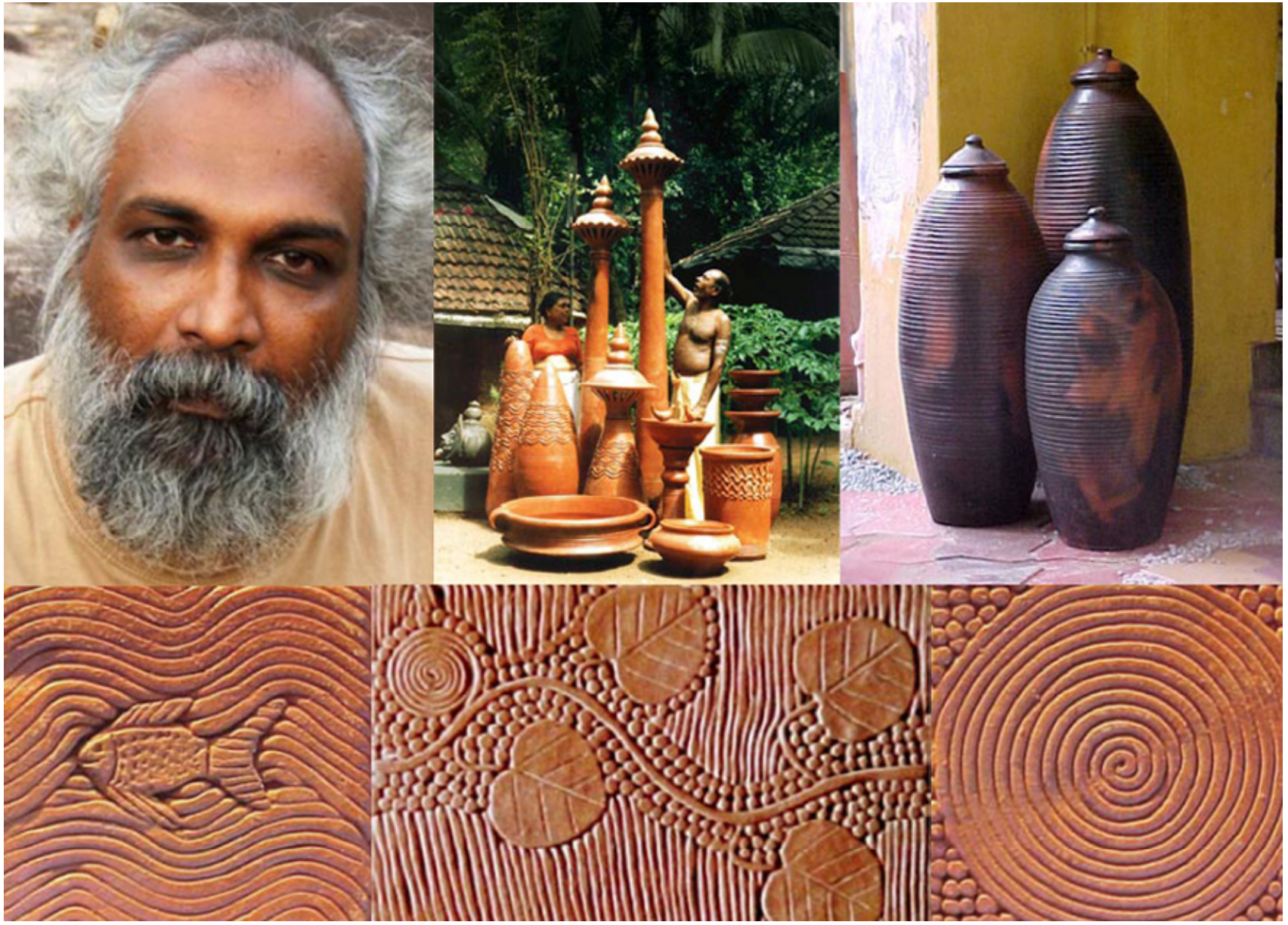
Clear and white matt glaze

REPOSITIONING OF CRAFT

- Not an outcome but a process.
- A part of the process of getting clarity on matters related to repositioning of a craft has been to familiarize myself through personal contact and through reading of work done by people in this field in India.
- Industrial products are all over but they are beginning to become faceless. They lack essence and character. Handicrafts are almost like an endangered species and expensive.
- Why: Because there are few people making them and fewer who want to.
- This is true of most Indian crafts, including pottery.
- Reality: There is a big demand for crafts in the urban spaces that is invisible to the artisans, especially in the rural areas.

KUMBHAM

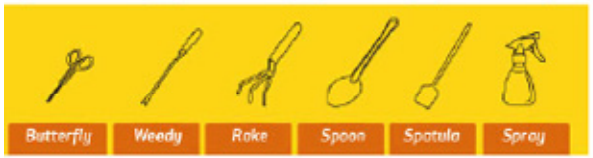
- K B Jinan is a craft activist cum designer whose projects deal with ‘humanizing the professional’.
- He explored the possibilities of terracotta suited for modern context & thus ‘Kumbham’ was born.
- He brought together a group of villagers when they had lost all their traditional skills due to the influx of cheap industrial substitutes in the village.
- They again started making tiles, murals and things for landscaping; rediscovering terracotta.
- His dream is to create more village centers of creativity in truly rural areas that would generate pride among the villagers; centers that are organic, where control rests with them and not with a bureaucrat.
- He plans to do a learning activity with potters’ children in the age group 18 to 24 to enable them to obtain the skills needed to pursue pottery in the present context.
- This experiment in pottery is being extended to Dhokra metal craft and Patachitra paintings too.

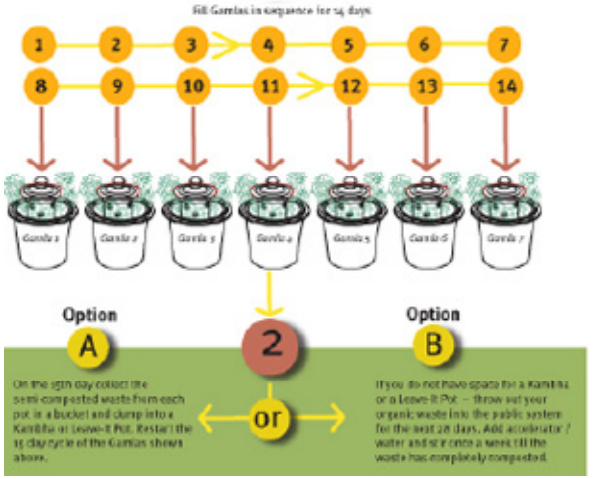


Jinan, potters of Aruvacode and their works

DAILY DUMP

- Daily Dump is a set of earthenware pots that helps households to manage their organic waste by converting it into compost.
- The complex organic matter breaks down into its simpler elements, resulting in a dark, earthy, sweet smelling nutrient rich humus.
- These products are designed to encourage compost in urban India homes, conveniently and hygienically. So, the home's contribution to the city's waste gets reduced by 60%.
- Varying sizes and types of these composters are available. One could buy it according to the size of his family, how often he cooks, kind of space available or how committed he is to managing organic waste.
- Brilliant context based solution to a problem that hovers on all.
- Great to gift!





kambha

Kambha with plant

Example of a painted kambha. There are 8 patterns

The NEW Rat- Proof lid. (inset fit kambha)

Kambha without plant

patta kambha

3 containors no plant

big containor with plant

small containor with plant

with holes

Daily dump range

FANTASTIC FABINDIA

- Fabindia started in the year 1960 with a strong belief that there is a need for marketing the vast and diverse craft traditions of India.

- It has managed to create sustainable employment by providing jobs to close to 15000 artisans today.

- Four things that Fabindia did right, from the start:

  Create an exquisite and exclusive product.
  A price point that defines that exclusiveness yet not out of reach of common man.
  Operate at a niche market with limited accessibility that builds an aura.
  Never advertise but make people talk about the product and shopping experience.

Fabindia handcrafted products

BAMBOO STORY

- India has 13 million bamboo craft persons all over the country with ranging skills. Most of them earn very little from the practice of craft, often abandoning the profession.
- There is vast scope of ‘repositioning’ bamboo craft by ‘design’ to reach urban and export markets.
- The IDC team believes in an integrated approach to bamboo craft which includes design, technology, training and marketing.
- In 1993, IDC hosted Jagruti. It brought together designers, crafts persons, students, officials and entrepreneurs. The outcome was the identification and development of new bamboo products.
- As pointed out by Professor Rao, it is important to recognize technology as an extension of craft.

BABY STEPS

- This is the first step in realizing the nuances of repositioning of a craft. There are several levels of understanding the complexities involved. I am attempting to get some clarity.
- Discussions: Souvenir shop at IIT Bombay. What if we had some things to contribute to the shop?
- In the process, we also debated selling things versus gifting them.
- Selling negates the idea of what goes into making the pieces. It only undervalues them.
- This directed us to the idea of give aways.
- Barter festival: To give a few cups to Descafe.
- It sounded too ‘give-take’. I was feeling the need of calling it something more ‘give-give’.
- So we called it ‘Celebrating pot-making and tea-drinking’.

CELEBRATING POT-MAKING & TEA-DRINKING

- Tea culture is defined by the way tea is made and consumed, by the way the people interact with tea, and by the aesthetics surrounding tea-drinking.
- Tea is commonly drunk at social events, and many cultures have created intricate formal ceremonies for these events.
- Drinking tea in India is too-everyday-an-activity. There is no ceremony attached to it.
- So, we thought of making tea drinking special. Department was good to start.
- At the ceramics studio, we handcrafted a set of teacups to be gifted to Descafe. So, each time one would have chai, there would be a memory.
- A get-together was organized to celebrate pot-making and tea-drinking near the design circle.
- We hope that, in time to come, people would refer to tea in these cups as Special Chai (special for reasons more than one).

Poster and handcrafted teacups

Tea-drinking

Tea-drinking

Tea-drinking

TRANSFER PRINT

- Currently: I am exploring the technique of transfer printing on ceramics.
- This could open up vast possibilities of experimenting with surface graphics and treatment.
- Like any other print, these too can be monochrome or color.
- A plate and eventually a film is made (a print sticker), which is then transferred onto the body of the bisqued or glaze fired pot. Then it is loaded in the kiln for its final firing that fuses it with ceramic body.
- These films are available in low temperature and high temperature firing options, depending upon the requirement of the graphic and its colors.

Red iron oxide transfer print sticker for 1200 °C glaze firing

INVISIBLE GAINS

- Conversation between clay and fingers.
- Seeds of growth in clay.
- Understanding the language of the material, beyond the grammar of words.
- Stability, peace, calm, concentration, persistence, dedication, detachment, balance.
- Extension of inner being, a reflection of thoughts, a space for meditation.
- Forms grow with the person, naturally.
- Japanese notion of beauty in imperfection, free from any attachment to symmetry or asymmetry.
- Eventually, I have also become less forceful of perfection, symmetry or form on pots.

FUTURE

- This project hasn't been so much to do with an activity resulting in cylinders, bowls or cups of value or aesthetic merit but rather is an outcome of an urge to find my own form and face.
- I wish to get into a healthy collaboration with some of the potters. They have skills I never can. I respect that.
- I also believe that traditional and studio potters can benefit each other. I have a lot to learn from them and maybe, in time to come, can offer something to them too.
- I see this project as an opportunity to do that in future. This is the first step in the tall ladder that I have envisaged as my goal in life.

THANK YOU!