

## Arupa Foundation 4 - Metaphor based Perfume bottles

a g rao

Abstract:

This document highlights a project at the IDC focused on the design of metaphor-based perfume bottles by the 1986-1988 batch of students, illustrating the use of 'Arupa' or the Implicate Order in design education. The project explored metaphoric space to identify a theme for design objects, such as perfume bottles, through intentional and creative thinking. Students employed various materials like acrylic, wood, and plaster of Paris to bring their abstract ideas into tangible forms. The enduring impact of this project is evident from the rich reflections and detailed feedback provided by the students decades later. This endeavour not only bridged the gap between theoretical concepts and practical application but also showcased the profound impact of embedding personal and culturally significant metaphors into design tasks. The initiative demonstrated that the right metaphors, when aligned with the designer's intent, could lead to innovative creations that resonate at a deeper level, leaving a lasting impression on both the creator and the observer. The document concludes with a poetic reflection, suggesting that the creative spirits unleashed here continue to inspire and shape the future of design education.

### 1.0 Background

As a student of NID, I had seen a well-known documentary film called 'Glass' directed by Dutch filmmaker Bert Haanstra and captivated by the 'form' of glass. (1) The film contrasts traditional handmade glassblowing techniques with modern automated bottle-making processes. Set to a dynamic jazz soundtrack, it artistically showcases the craftsmanship involved in glass production. In 1959, "Glass" won the Academy Award for Best Documentary.

The film was also shown at IDC, by Late Prof. Satish Bahadur who used to come as a visiting faculty from Film Institute of India, Pune.

- This film was an inspiration for me to set a task on design of perfume bottles for the 86-88 batch.
- An exercise in 'Metamorphosis task in clay – A to Apple' (2) was their 1<sup>st</sup> task. They also had done two tasks with flower as a theme, one in 2D (flower in a square) and another in 3D (Flower in a Cube).
- Flower in cube, as a 3D task to be made in POP was a hard task, considering the humid weather during that period. Drying the POP blocks, which was necessary for final finishing work, used to take time. The final results and good pictures surprised the students and increased their 'Imagination space'. It also created the motivation to work hard.
- I was also trying to figure out how 'Generative metaphors' could be introduced in the foundation tasks. An exercise on 'family of forms' with a previous batch was quite successful in that direction. Students had come out with *Peanut, Padmasana, Mudra-dance pose, Nandi, Mulla as well as Hamburger* as their base metaphors.

All these set a background for setting the task: 'Metaphor based perfume bottles'.

Results were a surprise for all at IDC. The task also seems to have a significant effect on the 'Inner Order' of students as seen from their revelations of 38-year-back memories. Final models were made in acrylic, a transparent material. But initial models after sketches were made in wood or POP. Shapes with central symmetry could be turned on a lathe before carving details.

Problem posed was: To design a perfume bottle for 50 to 100ml, liquid, taking a metaphor as basis.'

Problem space gets revealed as we see the final models with the feedback.

## 2.0 Perfume bottles: Final outputs with feed back

- *I thank all the students of the M des 986-1998, batch for taking trouble to dig up their memories and share their learning experiences and feedback.*

---

Mdes batch 86-88

### 2.1 Kamal

Student: Prashant Ahir



## 2.2 Vortex

Student: B.K.Chakravarti (BKC)



BKC : Dear sir it feels so good to see our work and how it shaped us. My bottle was vortex

*AGR: I think it was a great exercise! lot of hard work 😊 and hand work when it was difficult to use powered machines. Even to procure acrylic of that size in small quantities was difficult. The unconventional shape of the bottle created new space for Imagination. Sometimes students can get bogged down with the practicality of end use. That is where dialogue with the educator helps to treat it as 'foundation task' freeing from the burden of imagining working level solution initial stages. Connecting 'vortex' in water, helped shaping the bottle, though initial idea started with perfume spreading like Vortex. The output after polishing increased our imagination and created an impact in all, at IDC.*



### 2.3 Sprout

Student: Boban Varghese (BV)



BV: I enjoyed the transition, working with plaster of paris to acrylic, and the nature of the materials, including its limitations in the 'making'. These exercises revealed me the limitations of my hand skills (making skills) and the challenges in translating conceptual ideas into completed artifacts.



#### 2.4. Clove:

student: Srinivas K (SK)



SK: The challenge with presenting the CLOVE as a perfume bottle was that: having the round bulb at the bottom would be more aligned with expectations of Users.....but then it would have looked like a Brinjal with an extended stem....To overcome the problem, a deviation was suggested by Prof. Rao: viz. to have an add-on Stand at the bottom in which the Stem/stalk could be inserted.

#### 2.5. Parijath

Student: Vinay Mundada (VM)

VM: When we were asked to choose an inspiration, I went into my childhood memories where we had a Parijat tree in the courtyard of our ancestral home at my town. Every morning I used to collect these flowers for offering. At times I used to make a dense garland of it. My fingers would get coloured by touching the flower stems.

My challenge was to convert that delicate form to a voluminous form. I was struggling with it a motif and created an easy to make body of the bottle. I was good at working with lathe machine so I could turn it well and finished it nicely on the lathe only before buffing. Perspex was hard and difficult to work with mechanical hand tools. I had difficulty in buffing the details on the cap. lot. Then sir gave me an idea to create a neutral base. So I could create a cap with the flow



I was very happy to see my design in a slide presentation sir had made during one of the conferences at IDC later.

I am grateful to sit having inspired us, motivated us and pushed us to do better work. Working with variety of materials was very enriching experience.

*AGR: Vinay's bottle brought colour into it in an interesting way making it unique*



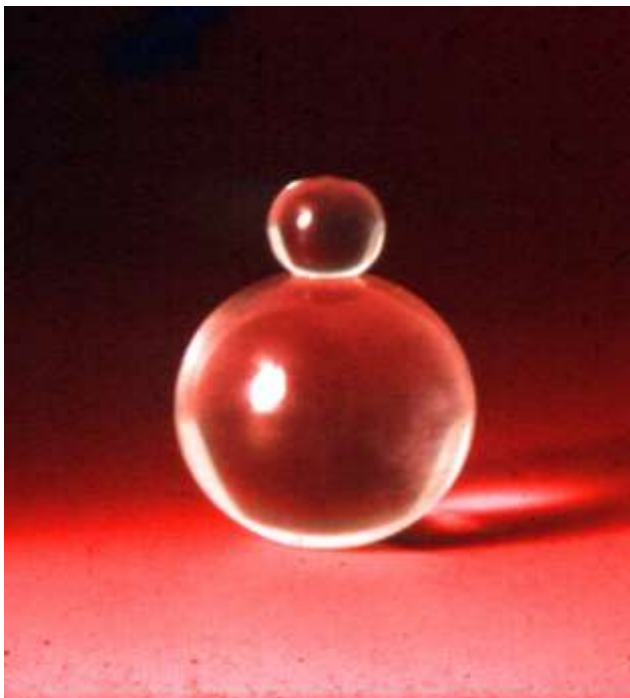
## 2.6. Makarand

Student: Sudhir Dhulked



## 2.7 Dew drop

Student: Suresh Chandrashekharan (SC/Suresh)



Suresh: When we were doing these kind of exercises, everything felt new and weird at the beginning. It was hard for me to comprehend, imagine words, text, letters 2d dimensional drawings etc., could be converted in 3D visual objects. it was fascinating at the same time challenging, especially for me coming from an electronics engg background, I vividly remember going near the lake early morning to have a more than casual look at a Dew drop. When I looked closely I realized that the base of the Dew drop was kind of flat, probably the weight of the drop and the surface tension played a role in it, that opened up some thoughts & ideas in my mind. So in the next class I gingerly chopped off the nice spherical Perspex that I had turned and polished in my previous class. my mind was constantly grappling and telling me you are doing a mistake, the symmetry will be lost and it will not look good. this tussle prevented me from doing a more aggressive chop (close to half the sphere which I thought should be Ok) ...but the fear of screwing up the form held me back. But after chopping off the sphere to some extent I felt. Oh! this is not too bad, not as bad as I had feared. Of course it set my mind free that things don't have to be symmetrical for objects to look good, . which I have followed in many of my design explorations later in my career, I remember having a one of those odd conversations on form with Prashanth and Anupam, that creating a good looking Form was tough, it required skill, imagination and above all overcoming our fears of failing in the process, of not being liked or appreciated... have grappled with this quite often. (for some it comes easy. I abhor those guys, but I also admire them)

*AGR: Well done*

## **2.8 Pearl in shell**

Student: Jay Mehta (Jay)



Jay: Dear Rao Sir! I would like to inform that if there is one person who was really influenced and use your teachings - it was me. A specially the perfume bottles. My love for perfume

bottles, cosmetics and coatings has molded my career till now. If I were to sum up my career and my stories in short:

- 1) I started by joining Star Glass Works group of companies.
- 2) Set up glass containers coating company - Color Frost (Bombay) Ltd.
- 3) Floated public shares to start a Lead Crystal ware manufacturing unit in Murbad near Mumbai.
- 4) Open a glass container design studio for Glass perfume bottles for Star Glass clients.
- 5) Presented a paper on Surface Coatings on Glass Container at the "International Conference on Surface Finishes", held at Bangalore in 1999.
- 6) Designed and launched range of cosmetics technical packaging for Estée Lauder, Shisedo, and others while working for Albea (one of the biggest manufacturers of Aerosol pumps). Your teaching and my learning of form under you has guided my career. Everything belongs to you Sir.

AGR: Jay (we used call him JP) and me had special associations. He studied at NID (where I had studied) for a year before joining IDC. He also worked for a year at IDC after M Des as a RA with me. We were studying Hinge of Crab's fore-arm which enabled it move multiple planes and hold Objects'.

IIT Campus had crabs all over in the rainy season. Watching them every morning from my balcony led to initiating the study. Jay did voluminous research on the topic. Since Phd programme in design was nowhere in sight, it ended up as 1year study project.

Jay's work (3. in references) in design of perfume bottles speaks of its own Poetry at a professional level.



Conceptual design for Estee Lauder

## 2.9. Temple

Student: Vani Sheshadri (Vani)



Vani: Coming from an architectural background was my limitation for this exercise. Since we worked constantly with form and function, I froze my form too quickly I think. I thought of perfume and smell as an enhancement and uplifting experience, to aspire. So the first form that came to mind was the shikara- the embodiment of human aspiration. I had my wood proto type for a while. In retrospect I should have experimented more on the gentleness of the form & maybe deconstructed it a bit

Vani: When I taught architecture students elements of form and design, *later*, in Mumbai-1990- I was so raw and enthusiastic, I gave them loosely defined exercises on form & space. Their approach was such an eye opener.

*AGR: when we teach we start learning how others think!*

AGR: I guess architects were less familiar with machines like Lathe, Sander, etc., and were dependent on studio staff to an extent which might have led to limited experimentation. Sculpting in acrylic was also happening for the first time in Plastic studio.

In any case there is no need to be apologetic for the past. Arupa of Learning manifests for each person in different 'Rupas'

Vani's temple bottle, surely,  
can inspire perfumers to create new perfumes even as it induces me to think of a poem  
with AI at my fingertips.

**In '96, at IDC's embrace,**

Vani faced a daunting chase.  
A perfume bottle, hers to design,  
Yet materials seemed to misalign.

By Powai Lake, she sought relief,  
In solitude, to ease her grief.  
Temple bells rang soft and clear,  
Awakening memories held dear.

South Indian scents filled the air:  
Parijat blooms, sandalwood rare.  
An idea bloomed within her mind,  
A temple's form in bottle designed.

Through trials faced and efforts grand,  
She shaped the bottle with her hand.  
A miniature temple, crafted fine,  
To hold the world's perfumes divine.

Her creation, both bold and new,  
Merged tradition with a modern view.  
Provoking perfumers to think anew  
With a pious task to pursue!



### 1.10. Swan

Student: Anupam Shukla (AS)



AS: For me, the swan came about from a simple thought of perfume being a proposal of love - pure and unadulterated.

Like the swans, who mate for life.

The form had to show the craning of the swan's neck, as though calling its mate.

The form flow had to be controlled and taut and not too curvaceous.

Guess, I didn't quite get there, but it was satisfying to be a bit abstract.

Perspex was a difficult material to work with, especially the polishing took lot of effort, and was never enough 😊

*AGR: I also remember a discussion with Anupam(AS) on how part can tell the whole! And he was able to capture the 'swan', in his abstraction. In an earlier 2D task 'Flower in a Square', done by the Class, 'part and whole' relationship was explored by some students effectively.*

---

### 3.0 Aesthetic Order

We can examine aesthetic order operating in semantic and syntactic zones.

#### 3.1 'Metaphor-Space'

What is the 'arupa or implicate order' which reveals the 'metaphor space'?

Metaphor is understood as a process of 'seeing as'. But 'Seeing what?' precedes 'seeing as', and design education addresses that. Most of the studies on metaphor are based on its 'rupas' or 'manifestations' of metaphor including 'generative metaphors'.

3.1.1 Intention: There is little study on 'intention' which leads to a generative metaphor, apart from studies on use of life-long metaphors, like Howard E Gruber's study of Charles Darwin (4). In all the great acts of inventions where we see metaphoric process there was an intention, personal meaning (5) which engaged the person. The intention thus creates the required mental space in 'arupa or the implicate order'. It may become lifelong for people who have reached Working Order2. (6)

*For design it becomes a mental skill to move in a particular direction on demand.* A client in practice or Teacher in a class room assigning a problem creates such demand. In this case the problem, 'Metaphor as a based perfume bottle' created the demand for 'Intention'.

#### 3.1.2 Eco-system

A conducive eco-system is the next requirement for 'metaphoric space' to operate.

The factors which contributed for such an ecosystem at IDC were

- The overall encouragement for free thinking and dialogues, without fear of failure.
- Earlier experience in tasks done: Metamorphosis in clay, Flower in square and Flower in a Cube, which had created confidence in dealing with unknown problems.

#### 3.1.3 Seeing 'beauty'.

Perception of 'beauty' leads to selection by each student.

Theme selection depends on seeing 'beauty' or 'liking' in the particular theme. Let us see how it has happened in the themes taken by students on their own.

Perfume associations', became a key, though there were no experiential sessions in smell perception or introduction to terms like 'aroma'.

- ❖ Flowers: Parijath, Kamal, Makarand
- ❖ Scented Spice: clove
- ❖ Spread of perfume: Vortex, Sprout
- ❖ Transparent Container: Dew drop, Pearl
- ❖ Narrative: Swan
- ❖ Space: Temple

### 3.1.4 Generative Metaphor

Each of the inspired images became a 'generative metaphor' when students saw them as perfume bottles.

- Parijath : *seeing as* lid of bottle with coloured stem, after a brief dialogue with teacher.
- Makarand : *seeing as* bottle shape with rhythms and flow of flower
- Kamal : *seeing as* container with elegant flower shape
- Clove : *seeing as* capsule with scaled up shape on a base (dialogue with Instructor)
- Dew drop: *seeing as* bottle of Nature
- Pearl in shell: *seeing as* stately container
- Temple: *seeing as* scaled down abode to contain and emanate fragrance
- Sprout: *seeing as* bottle with geminating cap
- Vorex: *seeing as* enclosure with whirling surfaces a tangential neck
- Swan: *seeing as* bottle with elegant neck curves

### 3.1.5 Reframing the problem- Dialogue Process

Reframing a problem is a critical design skill, which Donald Schön (*I was lucky to be his student at MIT in 1980*) discussed in his influential book "The Reflective Practitioner: How Professionals Think in Action" (1983). In this work, he emphasizes the importance of reframing as part of the design thinking process, where designers interpret and reinterpret problems to find innovative solutions.

In the present task how it came into picture in the dialogue process is significant.

- 'Perfume associations in the deep memories' surfaced when Vinay Mundada brought in his childhood memories of the flower' Parijatha'! He had not connected it to the 'shape of the bottle' by 'seeing as'. But it opened up an entirely new 'Imagination space'. He was little lost when he came for a discussion. Parijath flower, often used for daily worship of Hindu deities, indeed has a lovely reddish stem with white petals. In my dialogue process, my approach as a teacher has been to face the problem myself, as if I am the student. My experience as a designer helped me to reframe the problem as 'perfume bottle with the lid'. It was easier to see the Parijat flower in the lid, and perfume container as neutral support. Vinay caught on the concept and brought into reality.
- In case of 'Clove', Srinivas(KK), had a similar problem. Again reframing the problem as 'perfume bottle with its stand' resolved the issue. He shaped an elegant support with steps tuned with the rest of shape.
- In case of 'Vortex', the starting image was connected to spread of perfume. Vortex in the wind became difficult to see as a perfume container. In the dialogue a suggestion was made to see the beauty of vortex in water, which had a conducive surface. Chakku (BKC) caught on and created a container with the surface on either side. He further innovated a tangential neck for the bottle.

### 3.2 Body learning

How did body learning influence the task?

Acrylic being a hard material to shape posed a great challenge for shaping the pieces. In 1984, computer aided machining had no presence. Some of the shapes demanded considerable

amount of work with hands. Material revelation had a dramatic effect, when final buffing was done. All the bottles became solid lenses with complex curvatures. The total internal reflections mesmerized the viewers. Dew drop for a bottle or Pearl in the shell were not limited by the immediate practicalities of a bottle operation. The task fitted well as a Foundation task by outwitting the restricted imagination bound by immediate pragmatics.

#### 4.0 Inner Order

Arupa framework is open to shape the Inner Order in many ways, at different levels. Each task can be seen in this context.

##### 4.1 Addressing the Inner Order with Multi-Sensory Perception

The present task made a powerful connection to 'smell perception' in the thinking zone. It had a potential to bring in the memories of 'fragrances' from the past, as it happened in case of Vinay with 'parijath'.

However, what was missed out, I feel on 'Reflection', was to incorporate 'Mindfulness 'tasks along with 'multisensory' experiences as part of the protocol. Today we have enhanced knowledge on the topic, which I have elaborated in my recent article (7)

*Form of Smell: Arupa in Pedagogy of Design-2-Sense of Smell for Foundation Programme.*

Potentials to incorporate current knowledge as cited in the article, can be seen in Annexure 1.

##### 4.2 Inner Order as a manifestation of Implicate Order

Possible effect of 'one such task' can only be examined in a wider context with questions Like

*Who are You and what are You? (8)*

The focus in professional design education has been 'Dharma' answering what are you? Depending on the further opportunities and challenges, a person takes the learning in the task to higher professional levels as we can see in case of Jay Mehta. The trajectory can lead to excellence in the particular field.

There is the other trouble some Question, 'Who are You?', which is of spiritual nature, for us to contemplate:



\*\*\*\*\*

### Who am I? A mere Designer?

I am my Dharma, a designer by creed,  
I serve others, fulfilling their need.  
A client arrives with a problem to share,  
I shape and refine it with creative flair.

Aesthetic visions, I weave with care,  
Crafting solutions beyond compare.  
Years I toiled, my fees well-earned,  
Enough to live on, my lessons learned.

Yet now I ponder, deep in my soul—  
Who am I, beyond this role?  
Am I just a vessel, society's tool,  
Reflecting the trends, a fashioning mule?

Chaos whirls outside, the world in disarray,  
Am I to order the fragments with lines I lay?  
The world that shaped me, I see it clear,  
Am I not it? It brought me here.

A sage's voice, through the clutter, breaks clear,  
"You are the World, that made you", dear.  
Change yourself, and watch it transform  
Into a new Order with charm

So here I stand, this question unbound,  
A designer, a seeker, the answer profound.  
Who am I? The world, the change, the art,  
A creator of order, a world apart.

\*\*\*\*\*

Faculty: prof.A G Rao (AGR)

Students.

1. Prashant Ahir
2. Chatravarti.B.K
3. Sudhir. K.Dhulkhed.
4. Suresh Hiremani (late)
5. Vinay Mundada .M
6. Jayaprakash Mehta
7. Vani Seshadri:
8. Anupam Shukla
9. Srinivas.K
10. Chandrashekharan Suresh
11. Boban Varghese
12. Jaspreet singh

## References

1. Bert Haanstra ,(1958) 'Glass' – Documentary film  
<https://youtu.be/XLmIvDpHiTY>
2. Rao.A.G (2024), Arupa in Foundation 3 - Metamorphosis A for Apple  
<http://www.agrao.in/articles-papers-and-talks/160-arupa-foundation3-metamorphosis-a-to-apple>
3. Jay Mehta, <http://designbias.ca>
4. Gruber Howard. E: Darwin's 'Tree of Nature' and other Images of wide scope in Wechsler Judith(Ed). On Aesthetics in Science, The M.I.T Press, Cambridge, 1979.p-132
5. Rao, A. G. (2023). *Arupa: The implicate order as a new framework for form and design*. Retrieved from <http://www.agrao.in/images/Articles/arupa-implicateorder-one.pdf>.
6. Rao, A G (2023), Inner Order and Working Order, Retrieved from <http://www.agrao.in/articlespapers-and-talks/148-inner-order-and-working-order-18-07-2023>
7. Rao A G,(2024), Form-of-smell-arupa-in-pedagogy-of-design-2, Retrieved from <http://www.agrao.in/articles-papers-and-talks/150-form-of-smell-arupa-in-pedagogy-ofdesign-2>
- 8 .Ibid (6)

## Annexure



## 7.0 'Sense of smell' in foundation Programmes

*Introduction of 'smell as sense experience in foundation programmes can have many objectives*

- *To open up the road to holistic education by sensitising to sense of smell.*
- *To explore the concepts related to space perception like smell scape, smell walks and smell-marks in local contexts. This can add to the bank of collective knowledge.*
- *To study 'potentials of smell' to create favourable moods to enhance the richness of design.*
- *To discover one's 'Inner Order' and to look at the Arupa or Implicate order of design through the lens of smell.*
- *To probe individual 'deep memories of smell', for triggering, one's creativity as well as moving into higher working orders.*

Several tasks can be introduced to accomplish these objectives.

7.1 Smell Sensitisation: Experiencing smell boundaries, Locating smell source, Examining the concept of 'centrality' of Smell as an abstraction.

Tasks or Exercises

- Smell Identification games: Groups of 4 or 5, can be formed. Each group may create a smell source and pose a challenge to other groups to locate the smell-centre.
- Experiencing 'smell boundaries, blind folded, can be 'fun'. Students can work in groups of two to draw a smell boundary in a given space which can be compared with other groups.

7.2 Exploring Smell scape, Smell walks and smell posts:

Topic can be introduced through a ppt-talk + reading material

- Groups of 5 or 6, can work to create a smell map of chosen out-door areas. Local language used by people, for the smells, can be part of documentation.
- Smell walks of different zones can be given as tasks to groups

*A dialogue process can be initiated on how people relate to it.*

7.3 Exploring moods created by Smell

*'Opposite Moods' can be chosen for depiction with smells.*

- *Pleasant vs Unpleasant*
- *Active vs Relaxing, Soothing*
- *Active: Smell of Coffee, crushed Cinnamon, Peppermint*
- *Relaxing, Soothing: Vanilla, Pine*
- *Serious Vs Joyful*
- *Serious: burnt rubber, burning green wood*
- *Joyful: freshly cut grass, Vanilla*
- *Energetic vs Intoxicating, sleepy*

*Energetic: Jasmine, Citrus fruits*

*Sleepy, intoxicating: Vanilla, Burnt Hashish*

Class room tasks: Different groups can be assigned to collect source materials for 'opposite

Smells', to simulate them in the classroom. Agarbattis, Scents or Attars can be procured

depending on the resources available.

Each group can present the chosen mood using the connected smell in a theatric mode.

Smell overlaps, penetrations into other zones, can be part of explorations.

7.4 Exploring Individual creative triggers

Students can narrate and write down their individual smell memories from their past. Identifying any specific smell which acts as creative trigger can be done through an 'imagery session' where they can experience deep relaxation.

Individual presentations and group discussions can enliven the class room

experience. Individual 'dialogue process with a teacher' can be a useful mode.