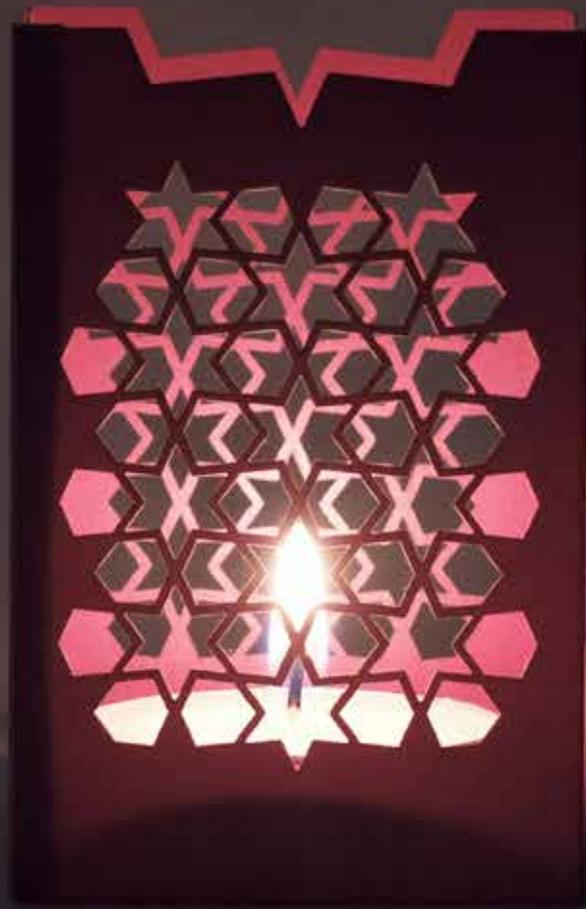# Understanding Structure Packaging and label design

DE 622 Packaging and label design

MANDAR RANE
Professor . Communication Design

IDC School of Design
Indian Institute of Technology Bombay

PURBA JOSHI
Professor . Product Design

IDC School of Design
Indian Institute of Technology Bombay

Assignments
DE 622 Sheet to form
DE 622 Packaging for a hypothetical chocolate brand
DE 622 Play with materials
DE 622 Designing packaging for Shken.in

Packaging and label design coursework

Introductory course to explore package design and label design through hands-on assignments engaging students into multiple mini-design projects. The course will focus on functional aspects of package design related to its structure, form, strength, material, safety, transportation, production, usage and environmental concerns. Label design will investigate the purpose of branding a product, trade dress, need for aesthetic considerations; such as visual identity, image, typography, colour and challenges in communicating product information unambiguously.

In addition, this course also dwells into concerns of creating inclusive packaging solutions with a special focus on problems situated in the Indian context.

Punch Mark

DE 667: Design Workshop Packaging and Label design

Course contents:

In this introductory course, we will explore package design and label design through hands on assignments engaging students into multiple mini-design projects. In package design we will dwell into the functional aspects of package design related to its structure, form, strength, material, safety, transportation, production, usage and environmental concerns. Simultaneously label design will investigate the purpose of branding a product, need for aesthetic considerations; such as visual identity, image, typography, color and challenges in communicating product information unambiguously. Students will solve pre-defined problems and are expected to come up with original ideas. They will translate their concepts and sketches into actual size three dimensional prototypes to match industry standard packaging.

Project Based course:

Since the duration of the elective is short, problems related to packaging design will be introduced by the instructors as mini projects. Learning by doing, in class discussions, debates and hands-on work of iterative nature will be the focus of this course. Aim is to develop our ability to think through a structure for a given product and understand aspects of communication related to the product in the context of consumer and his needs.

Material List: The kit

- 3M Scotch Tape
- Pencils HB, 2B,(Any make)
- Cutting Mat A3 Size
- Small Size Cutter + Large Size Cutter (Get extra blades)
- Nalanda Transparent Scale - 24 Inches
- Double sided Tape, 0.5 inch (can be shared between two)
- Creasing tool
- Small scissors

(All materials mentioned in the list above are compulsory, Students won't be permitted to attend the elective without these)

Field Visit 1: Jayna Packaging

Jayna is a leader in packaging (especially corrugated sheets) and is based in Mumbai. We have planned a visit to their factory, office and studio to see possibilities in the world of sustainable packaging. We have scheduled our meeting on Friday, 29th of July, 2016 at 1.00 pm.

Course Instructors:
Prof. Mandar Rane
Communication Design
Prof. Purba Joshi
Product Design

Course Credits: 6
Pages in this document: 3
Venue: Plastic Studio
Time: 9.30 onwards

Course Relevance:
Anyone who is interested in building three dimensional forms, structure (Package Design) and Visual Design (Label Design).

Course Duration:

JULY 2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30 Visit 1	31

AUGUST 2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6 Visit 2	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

In total the course renders exactly 9.5 working days, excluding saturdays.

ID 667: Design Workshop Packaging and Label design

Books for reference:

1. Paul Jackson, Structural Packaging: Design Your Own Boxes and 3-D Forms, Laurence King Publishing, 2015
2. Paul Jackson, Folding Techniques for Designers: From Sheet to Form, Laurence King Publishing, 2011
3. Paul Jackson,Cut and Fold Techniques for Pop-Up Designs, Laurence King Publishing, 2014
4. Stevan Sonsino, Packaging Design: Graphics, Materials, Technology, Thames and Hudson Ltd., 1990
5. Scott Boylston, Designing sustainable packaging, Laurence King Publishing, 2009
6. Natarajan S., Govindarajan M., Kumar B., Fundamentals of Packaging Technology, PHI Learning Private Limited-New Delhi, 2014
7. Rob Thompson, Graphics and Packaging Production: The Manufacturing Guides Series, Thames and Hudson, 2012
8. Candace Ellicott, Sarah Roncarelli, Packaging Essentials: 100 Design Principles for Creating Packages, Rockport Publishers, 2010
9. Andrew H Dent , Leslie Sherr, Material Innovation: Packaging Design, Thames & Hudson, 2015
10. Giles Calver, What is Packaging Design?, Roto Vision SA, 2004
11. Wendy Jedlicka, Packaging Sustainability, John Wiley and Sons, Inc., 2009

What we would do in this course?

- Design a low cost packaging and label design solution for moulds of handicraft products for a live project.
- Design packaging and label graphics for a hypothetical product to be introduced in the class as a mini project. It will consists of three phases of stage wise development.
- Create an aesthetically pleasing label graphics aligned to the given brief using an industry standard structure of package.
- Focus on creating of form with gifting as a purpose.
- Focus on designing an experience that creates user involvement by interacting with the packaging.

Software Proficiency:
Adobe Illustrator
Auto Cad
Adobe Photoshop
Adobe Indesign

Presentation Methods:
Lab (studio)
Lecture / Group Discussions
Handouts
Field visits
Prototypes

Evaluation Methods:
Project outcomes
Finishing and Detailing
Conceptual development
in alignment with the brief
Assignments have weightage

Punch Mark

A1: Sheet to form
Box out of a single sheet

Punch Mark

Task A1.1

Create a cube box with a lid which can be opened and closed to store chocolates. The dimensions of the box must be 38mm precisely. The flaps created in the development of the box should be tapered. You can use double sided (red tape) to hold the box together. The development of the box should be from a single sheet - 270 gsm (gram per square meter).

Task A1.2

Create a similar box as mentioned above but make sure this one is a self-locking (glueless) cube box of 38mm side. The development of the box should be from a single sheet.

Task A1.3

Create a similar box as mentioned above, this one with an inclined surface. The inclined surface should be accomodated within the 38 mm dimension and not achieved by increasing the dimension of the box. The development of the box should be from a single sheet. You can use glue to create this box

Task A1.4

Create a similar box as mentioned above, but with one truncated corner. The development of the box should be from a single sheet. You can use glue to create this box, but self locking is desired.

Task A1.5

Create a perforated box to accommodate a standard tea light candle. Visualize it to be a lamp when the candle is lit so that the perforations create a play of light and shadows either on the floor on which it is kept or on the wall where shadows are cast. Create explorations and iterate to celebrate this festive ambience. Finally convert your design into a vector artwork so it can be ready to be cut by laser.

Final design will be laser cut at IDC, Laser studio
Person Coordinating: Mr. Patil, he will brief students about the requirements of a print ready file.
DXF is the preffered file format. Adove illustrator also exports a DXF

Note:
Make sure that the candle does not burn the paper.

Task A1.6: Challenge yourself

- Create a multicolored cube box of 38mm sides using two papers. Do not stick the papers but interlock them to create this box
- Create an overlap of two cutout artworks so that they interact together to form a third shape using laser cutting.
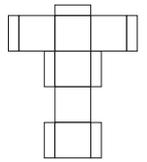
Paper to be used:
GSM: 270
Colour: Brown

Task A1.6

Sets of Multi-colored sheets to be purchased. GSM is an acronym standing for 'Grams per Square Meter'. It enables print buyers and print suppliers to know exactly about the quality of paper that is being ordered. The higher the GSM number, the heavier the paper.

Understanding and exploring structures in paper

Day 1
Assignment A1.1

Day 1
Quick paper prototype
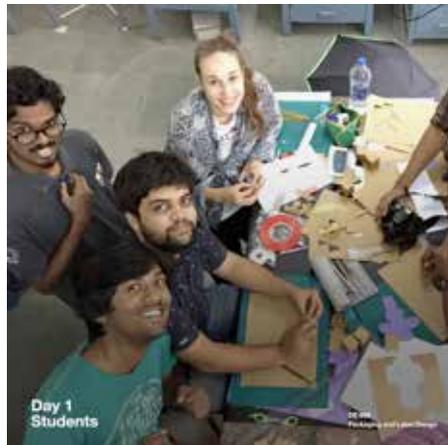
Day 1
Workspace

Day 1
Boxes

Day 1
Students

Day 1
Student work

Day 2
How does it lock?

Day 2
How does it lock?

Day 2
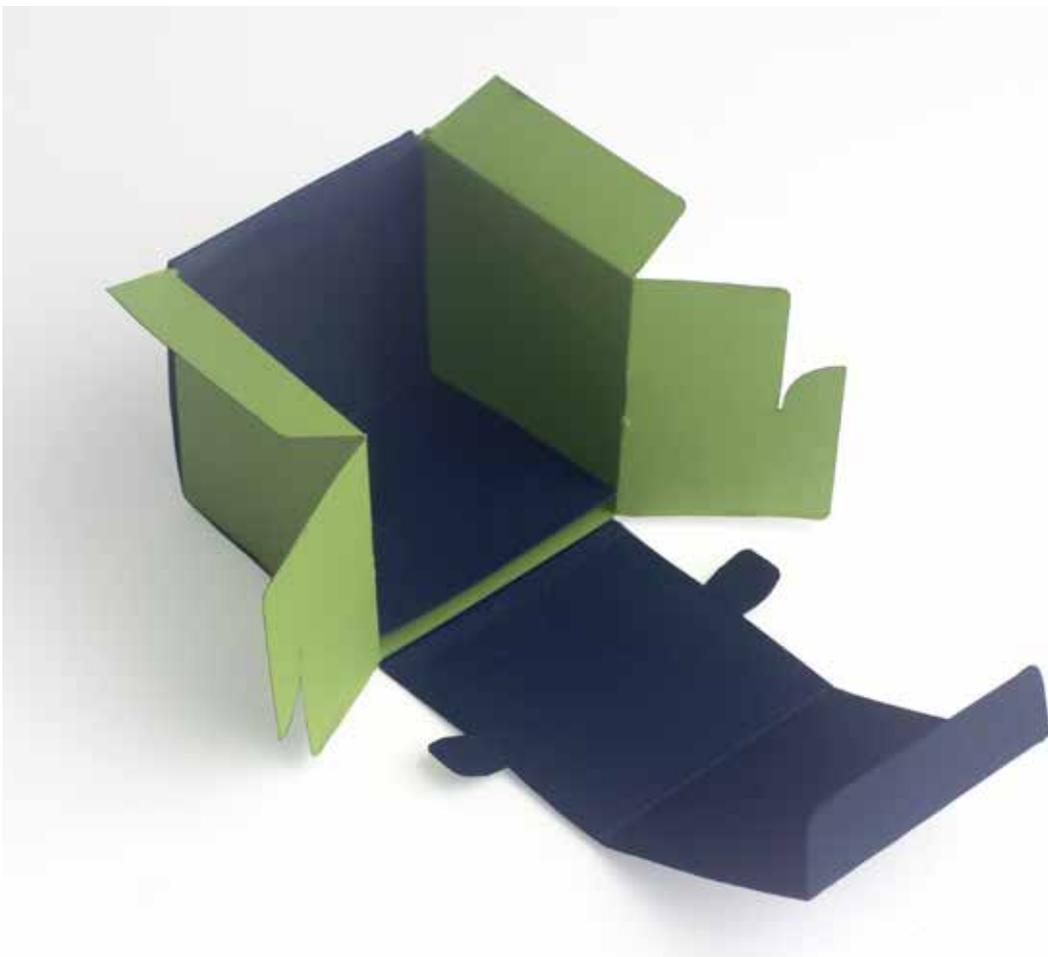How does it lock?

Day 2
Be precise. 50 mm is 50 mm.

Day 2
The class

Day 2
The box

Two colour glueless self-locking paper box   Designed by Purba Joshi

Two colour glueless self-locking paper box   Designed by Purba Joshi
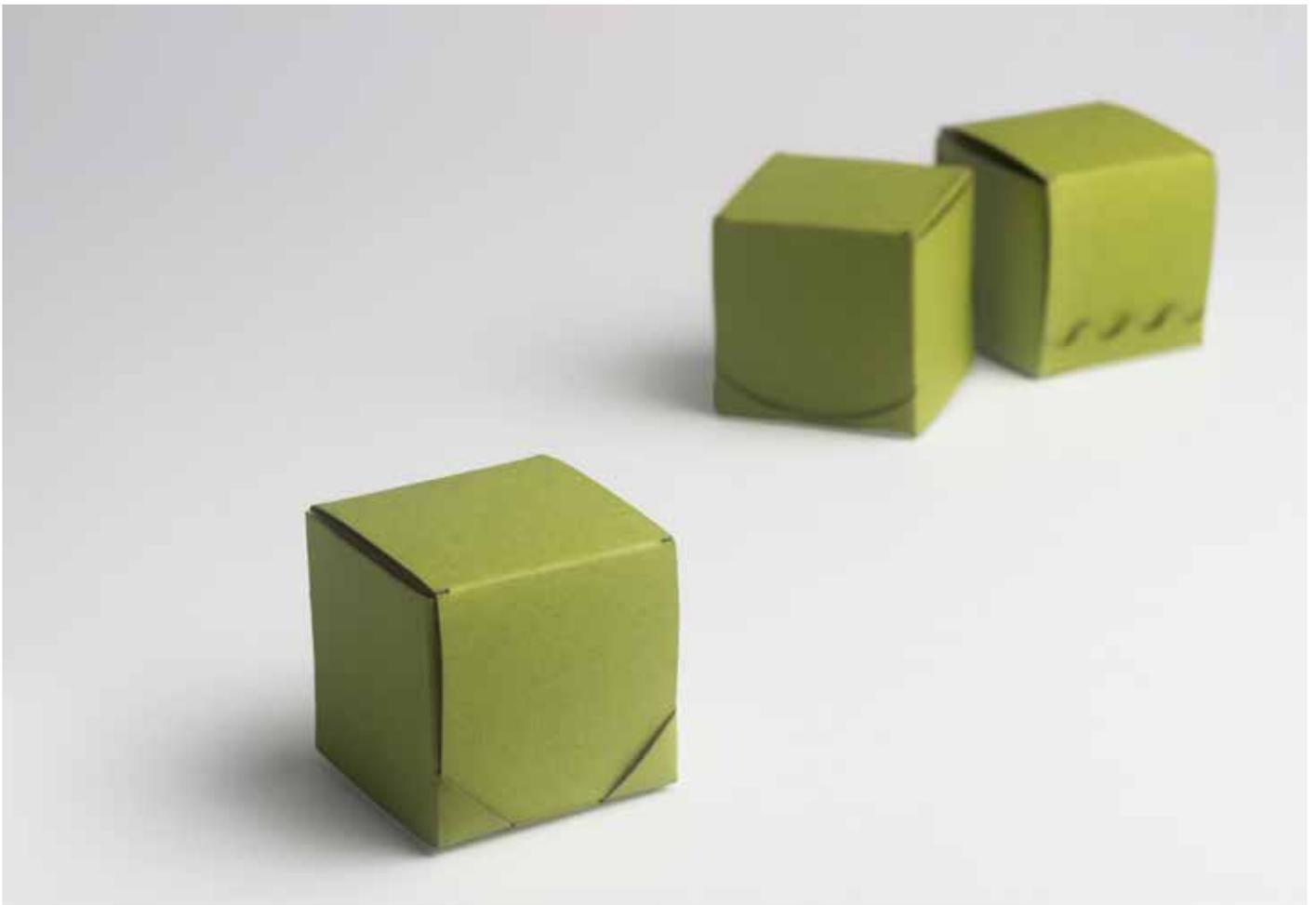
Single colour one piece glueless self-locking paper box   Designed by Purba Joshi
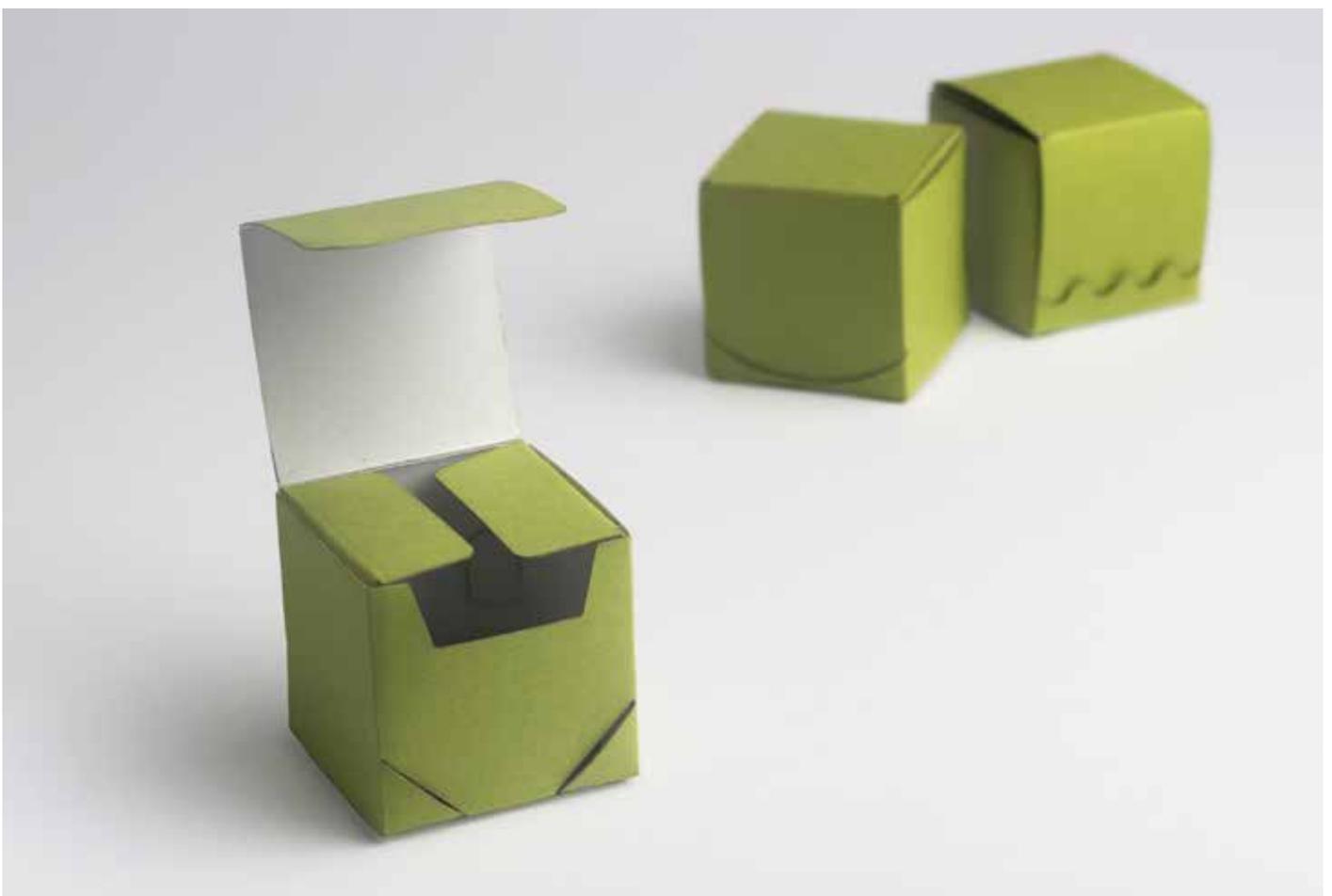
Single colour one piece glueless self-locking paper box   Designed by Purba Joshi

B1: Design packaging for a brand of chocolates named 'DARK'

Course Instructors:
Prof. Mandar Rane
Communication Design
Prof. Purba Joshi
Product Design
(on sabbatical, but will be
a part of this course)

Pages in this document: 1

Introduction:
Sunil is launching a new series of dark chocolates in the market. He plans to launch various flavours under the brand name DARK. Currently he has launched Dark with five flavours (suffix) with their respective taglines as mentioned below:

1. **DarkBIT** - Sweet Bitterness
2. **DarkORA** - Darkness of Orange
3. **DarkALM** - Roasted flavours
4. **DarkCSH** - Encash the cashews
5. **DarkF&N** - Fruity and nutty

Sunil had hired a designer to design the logo for the brand. The logos for each of these flavours are given below and the vector files for the same will be provided.

Task B1.1
Create an aesthetically pleasing package for the five flavours of the Brand, Dark. As a reference to design the packaging, the 'plaster of Paris' mock-up of the actual size of the chocolate will be provided to work with. measure the dimensions of the chocolate from these pop mock-ups. In this stage B1.1 the packaging will be designed for single chocolates only.

The written content on the single chocolate will be as follows:
Ingredients: Cocoa Powder, Sugar
Net weight: 25 gms
Allergen Information: Contains soya derivative and may contain milk

Task B1.2
Focus on creating an interesting form with gifting as a purpose. You can combine all the five flavours and derive the form. In this task the packaging has to be designed for all five flavours to be packed together.

Task B1.3
Focus on designing an experience that creates user involvement by interacting with the packaging. This will also be designed for the all the five flavours to be sold together, not as a single piece.

The written content on the group chocolates will be as follows:
Ingredients: Cocoa Powder, Sugar, Hydrogenated Vegetable Oil, Cocoa solids, Emulsifiers (E322, E476 and Salt)
Net weight: 150 gms
Allergen Information: Contains soya derivative and may contain milk
Veg icon to indicate the type: for vegetarians
FSSAI Lic No. 112153330007689

Refer dropbox for vector files
Dark Chocolate Logos for each flavour:

Punch Mark
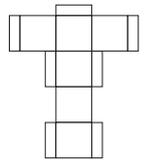
Exploring ways to pack and importance of orientation

Chocolates we designed.
Coffee + Roasted almonds.

Day 3
Wrap the chocolate

Day 3
Wrap the chocolate

Day 3
Done

Day 5
Thinking Flat

Day 5
Thinking Flat

Day 5
Thinking Flat

Day 5
Visualising the function

Day 5
Visualising the function

Day 5
Visualising the function

Day 5
Label design

Day 5
Done with this, think new
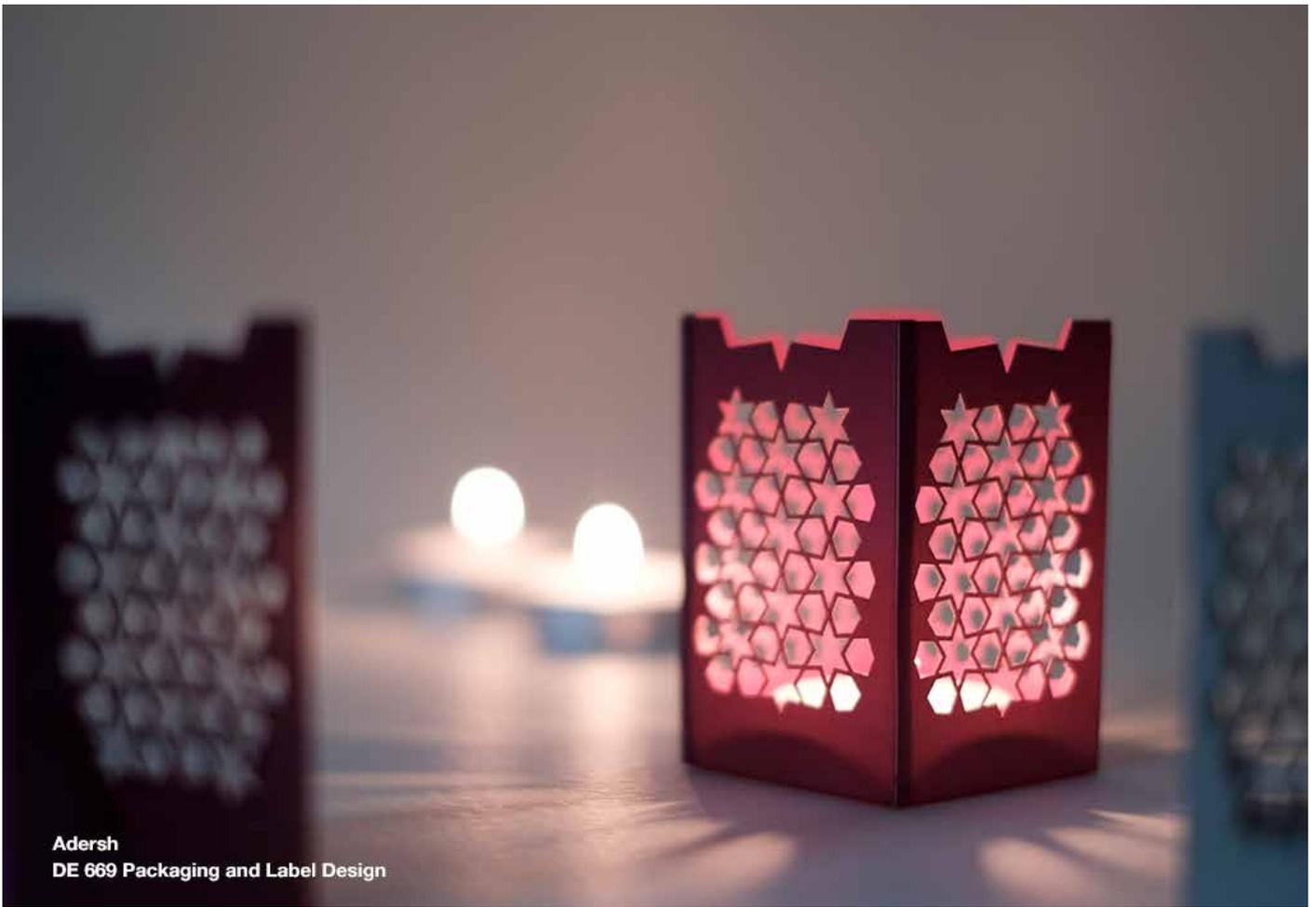
Adersh
DE 669 Packaging and Label Design

Packaging the light

Adersh
DE 669 Packaging and Label Design

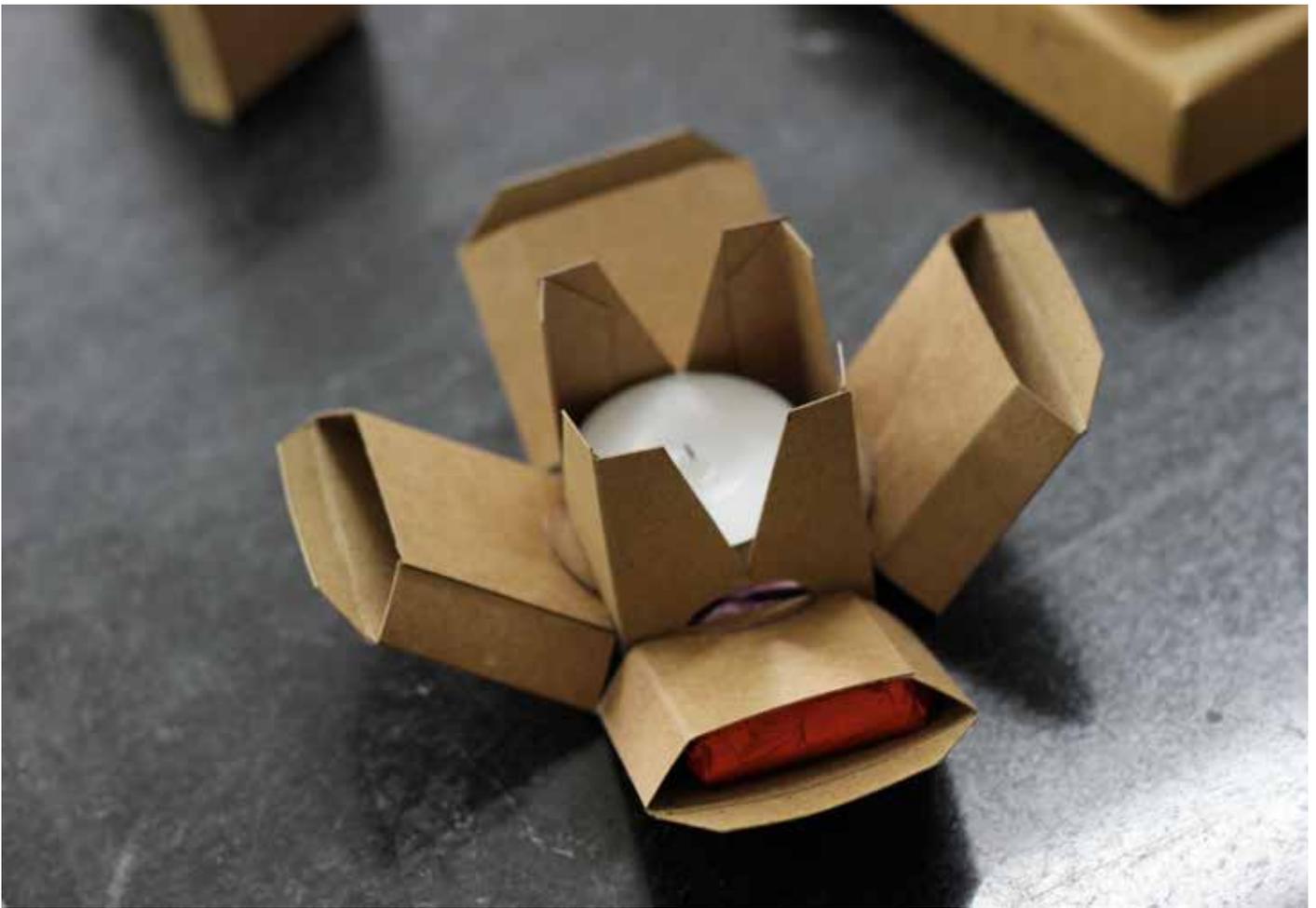Packaging the light

Arun
DE 669 Packaging and Label Design

Packaging the light

Arun
DE 669 Packaging and Label Design

Packaging the light

Packaging the light with chocolate

Packaging the light with chocolate

Kalagouda
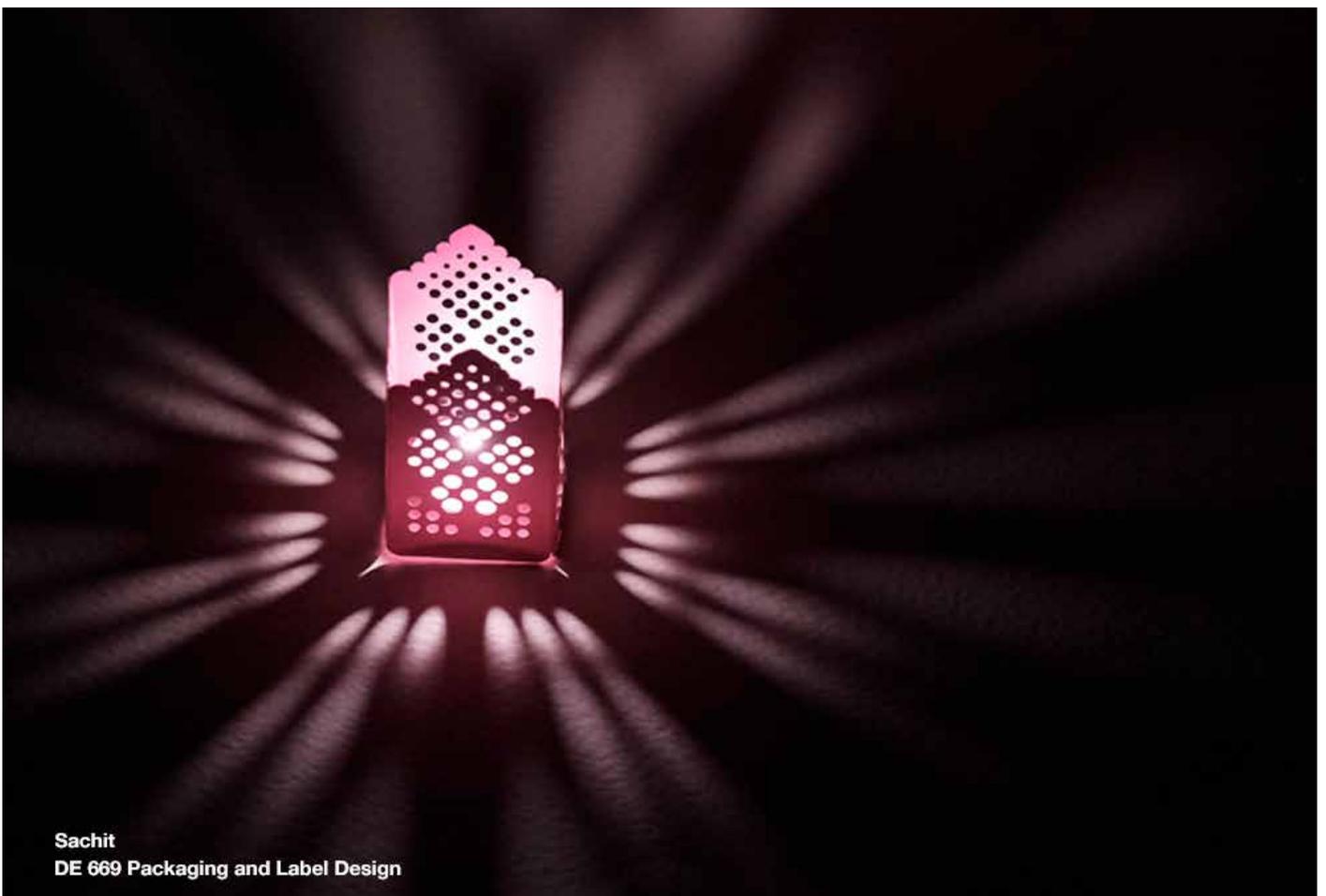DE 669 Packaging and Label Design

Packaging the light

Laura
DE 669 Packaging and Label Design

Packaging the light

Packaging the light with chocolate

Sachit
DE 669 Packaging and Label Design

Packaging the light

Creating surprise with packaging

Branding exploration

Shken: Packaging Design and branding for shken moulds

About Shken and Syntein production centre:

Shken is a social enterprise which brings together craftsmen to create a community and organise the handicraft sector keeping in mind the benefit for the craftsmen. In this context shken is planning a production centre at syntein (SPC) Syntein Prodcution Centre, in the village: Mawkaphan, block – Mawsynram, Meghalaya. Amongst the cluster of five villages, only Mawkaphan village has access to motorable road. Of the 200 families comprising the village nearly 70 families are involved in bamboo crafts. The center is envisaged to be a craft collective where craftsmen from the village will create products to be transported in bulk to Metro cities by identifying young local entrepreneurs from Meghalaya. Satisfying a bulk order for handicrafts products is time consuming, strenuous, labour intensive and a skilled job as each product is created by hand. Therefore, these products lack standardization and inconsistency in shape, size and form, creating hurdles in effective transportation and at times rejection due to lack of precision and finishing. Identifying this problem product designers have designed new products which are created using moulds. These moulds help craftsmen build products faster and with precision in lesser time.

Packaging challenge:

These moulds need a packaging design solution which is low cost and easy in transport as it has to be transported at various production centers in villages across Meghalaya. You are expected to design the structure of the package, so that the mould can be transported safely without any damage.

Communication challenge:

Some of the moulds used for the products are transported in a collapsed state (flat) and need to be reassembled at the venue. The craftsmen have to be trained for this assembly of the mould or it would affect the final shape of the product shape or size leading to inconsistency in production. The craftsmen speak their local language and are not familiar with English or Hindi. Can you design a language independent instruction to assemble the mould which can be accompanied with the pack.

Course Instructors:
Prof. Mandar Rane
Communication Design
Expertise - Graphics

Prof. Purba Joshi
Product Design
Expertise - Structure

shken.in
CRAFT · COMMUNITY · COLLECTIVES

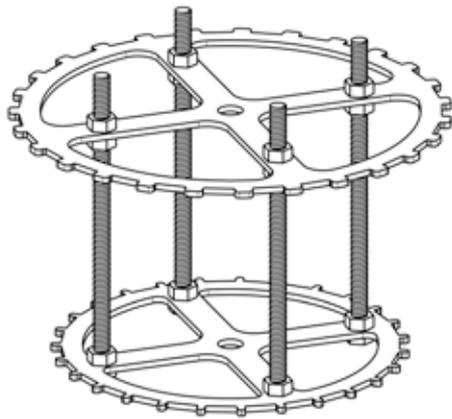**Shken logo and Tagline:**
Vector artwork will be provided

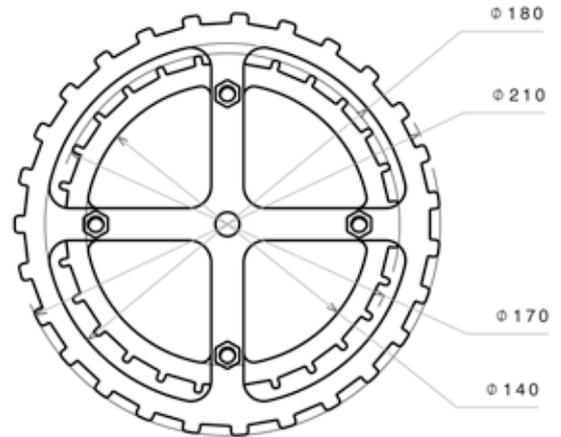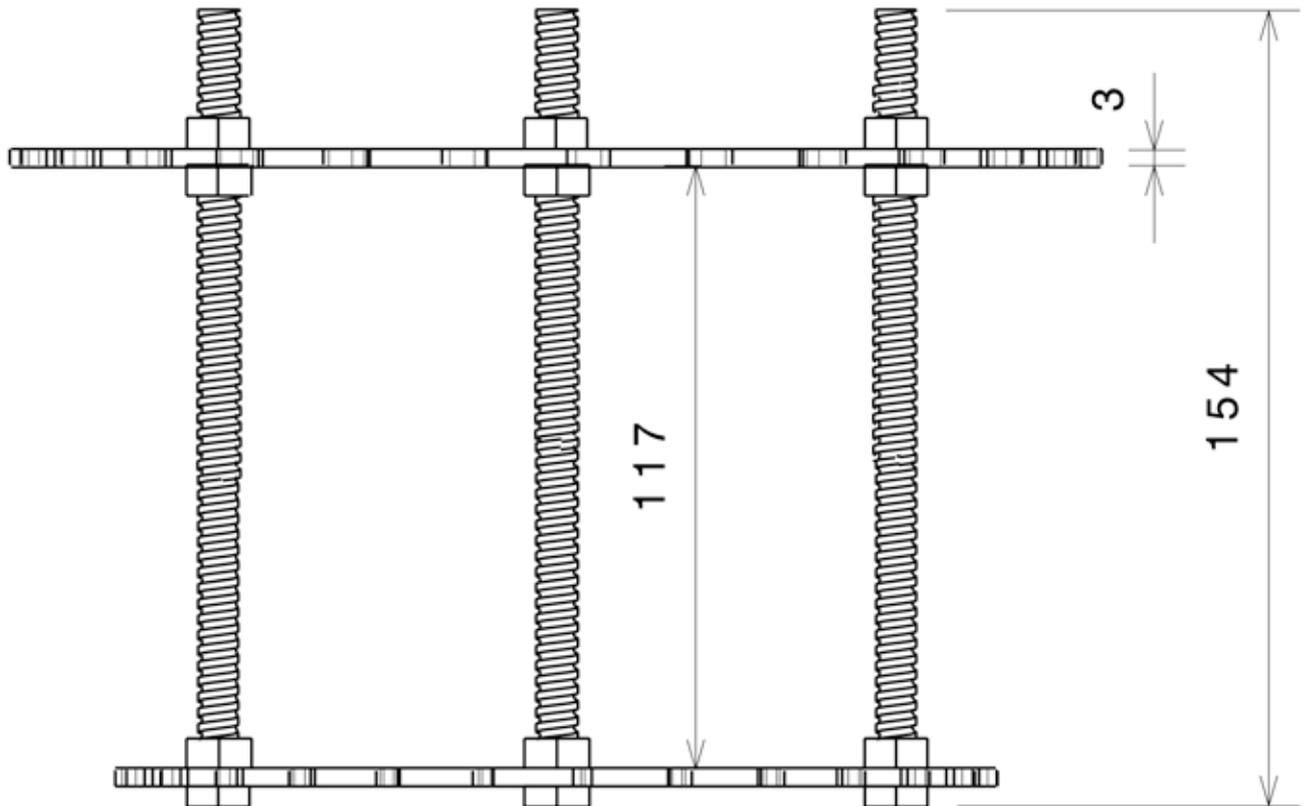**Shken Product:**
Multi-Purpose Basket

Details
Multi-purpose basket mould

ISOMETRIC VIEW

Φ 180
Φ 210
Φ 170
Φ 140

FRONT VIEW SCALE: 1:3

3

117

154

SIDE VIEW   SCALE: 1:3

Explorations for mold packaging

Explorations for mold packaging

SHKEN.IN
CRAFT · COMMUNITY · COLLECTIVES
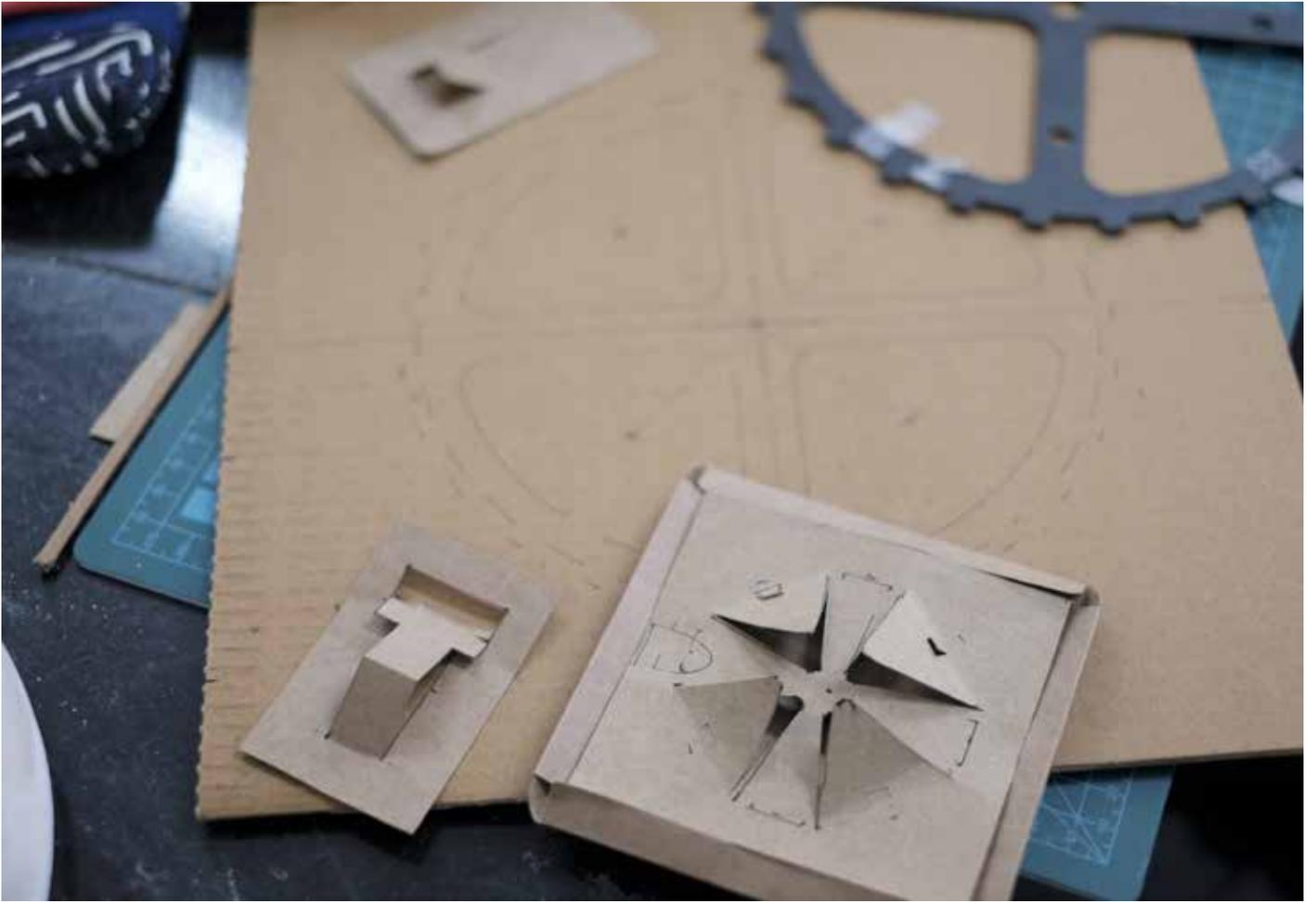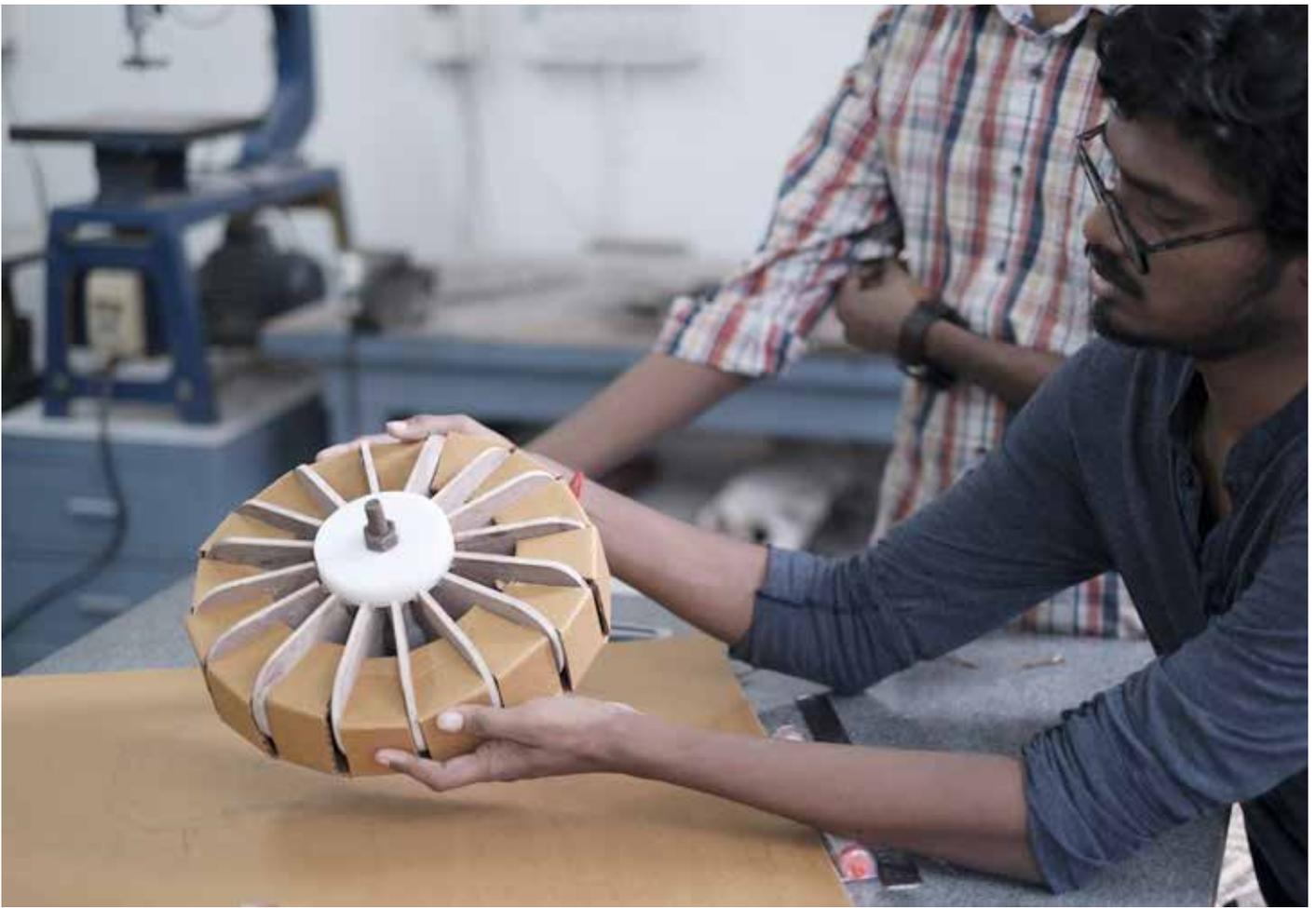
Complete pack for wastepaper basket mold

Complete pack with branding and instructions

Explorations for mold packaging

Explorations for mold packaging

Explorations for mold packaging

Simplified explorations for mold packaging

B1: Play with materials
From the formless comes the form

Introduction:

"From the formless comes the form". If we draw an analogy to this statement, we find parallels to the act of folding (transforming) a flat paper into a three dimensional structure. As designers we manifest a shape (paper) into a three dimensional form (structure) based on the context provided to us. Context here can be understood as a problem statement, which we as designers attempt to solve. Through the tasks given below lets attempt two things:

1. Designing a solution when the problem is stated.
2. Creating explorations without a problem statement.

Scenario:

Sunil is a proprietor of 'PROPES' which is famous for its innovative range of packaging products using paper and rope. He has got a new range of products to be packed. Sunil is aware of importance of design and therefore, he has hired all of you into his design team to develop the new creative range of paper products.

Task B1.1: Category - Problem solving

Designing a solution when the problem is stated.
Sunil has given us few products. Pack the given product using paper and rope. Explore the interaction between the chosen materials to create an aesthetically pleasing pack.

Task B1.2

Create a visual composition to be mapped onto the pack (structure) you have designed.

Task B2: Category - Explore Paper Bags

Creating explorations without a problem statement.
In problem solving when the problem is stated, it defines certain boundaries in which problem solving has to take place. Such boundaries arrive from the context within which one searches for solutions. In contrast when a problem is not stated, it confuses the designer from where to begin. Open-ended, boundary-less are the qualities of exploratory problems. Articulating such explorations are difficult when we begin to define them. They appear abstract and direction-less.

Feel free to create a formal play and add novelty with the available materials, rope and paper to create paper bags. Exploratory tasks are meant to hone our ability to think lateral.

Explore and enjoy.

Course:
DE 669 Packaging and Label Design

Instructors:
Prof. Mandar Rane
Communication Design
Prof. Purba Joshi
Product Design

PROPES®

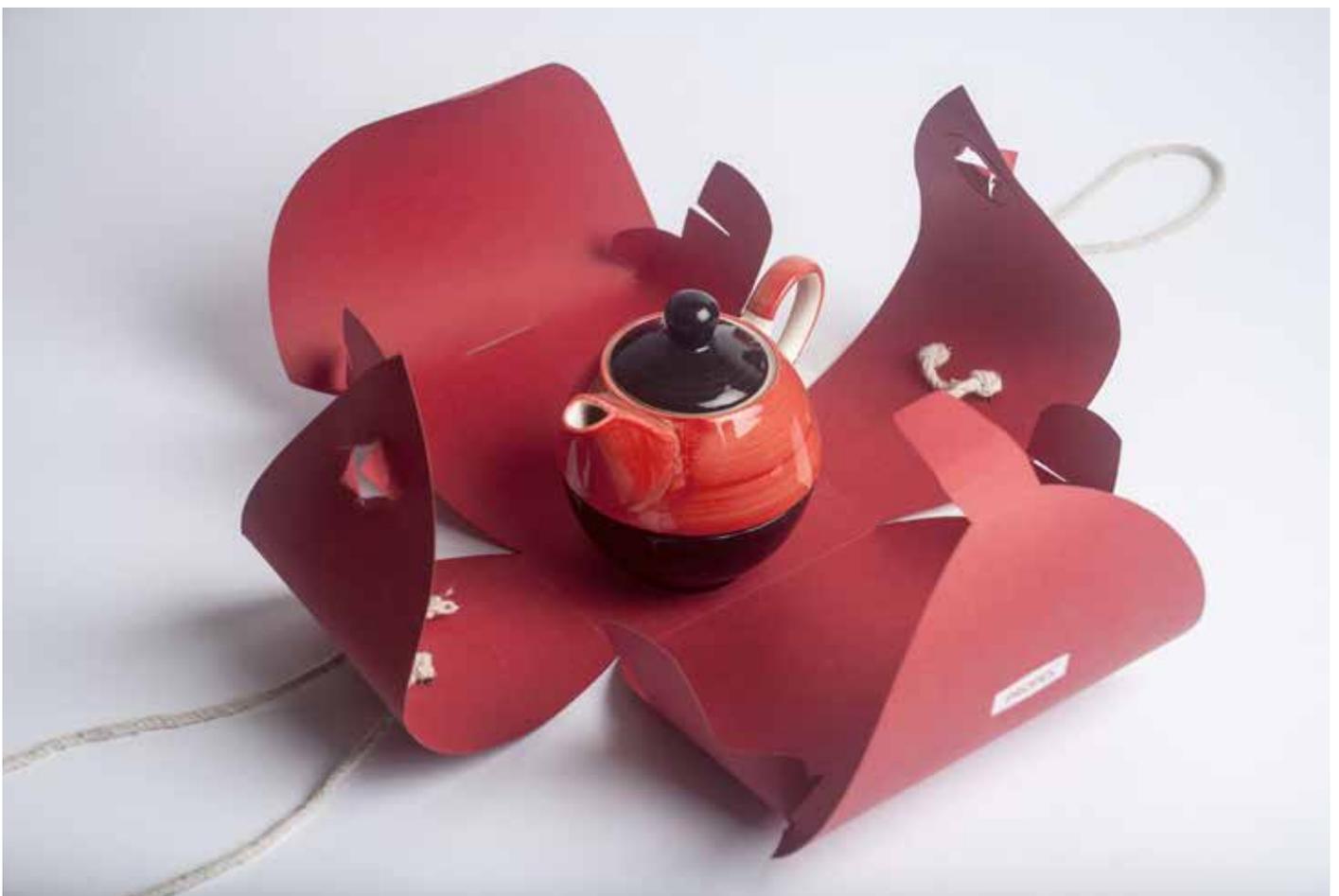# Student's work
Packing with paper and rope

Packaging for T-shirts

Design to carry and display fragile product

Packaging for plant

Design to carry and display fragile product

Packaging for ceramic kettle and cup

Design to carry and display fragile product   Packaging for terracotta incense burner

Design to carry and display   Packaging for bamboo roti basket

Design souvenir for Mumbai

Packaging for wine bottle

Design souvenir for Mumbai

Packaging for wine bottle

Design to carry and display   Packaging for books

Design to protect and display   Packaging for thermos bottle

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Assignments
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