

WORK/DESIGN PORTFOLIO

By

Aakanksha Parameshwar

mail: aakanksha.parameshwar@gmail.com

"I certify that the work included in this portfolio is my own original work. Work included which was conducted as part of a team or other group is indicated and attributed and a true description of my role in the project is included."



Signature

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ANALYSIS AND DESIGN OF VARIOUS FACE RECOGNITION ALGORITHMS

Feb. 2014 - May. 2014

This was a final year project implemented by a team of two. The idea behind this project was to provide the users a platform to test, analyse and compare various face recognition algorithms based on how effectively each of them performs under the challenges of face recognition. The challenges being Occlusion, Expression, Illumination, Age and Pose.

We used 'Yale database A' and 'ORL database' for testing purposes and provided tests based on each challenge. We did so by categorizing the images in databases based on pose, illumination, and other factors. The algorithms used a set of images to obtain intermediate representations of facial features in a 2D matrix which trained them for

recognizing faces in the testing set.

We implemented four algorithms namely: Principal Component Analysis (PCA), Linear Discriminant Analysis (LDA), Scale Invariant Feature Transform (SIFT) and Line Edge Map (LEM) and developed two user interfaces: a GUI using Tkinter and a Web UI using flask web framework, but since the latter was more appealing we ended up using it as our test tool. We tabulated the results and documented our analysis through two survey papers on the challenges of face recognition.

The code for the application can be found at <https://github.com/AakankshaParameshwar/facerec-FYP>

TECHNOLOGIES USED :

Languages: Python, HTML, CSS, Javascript, bash.

Libraries: OpenCV, Matplotlib, PIL, NumPy, Flask.

Databases: Yale Database A, ORL database.

A slideshow of our application

Click on the file below to play the slideshow



CAMPUS DIARIES WEB DESIGN PROJECT

Jun. 2013 - Aug. 2013

The screenshot shows the 'About Us' page of the Campus Diaries website. At the top, there's a dark header with the 'CAMPUS DIARIES' logo, navigation links for 'Sign Up', 'UNMAGAZINE', 'Twitter', 'Facebook', 'Blog', and 'Home', and a large background image of several stacked books. Below the header, a text block reads: 'Self-expression and creative platform for the youth, Campus Diaries is a place for your stories, ideas and experiences. Create and express freely, and discover some of the best creative work and talent from the community.' Underneath this, there's a section titled 'About Us!' featuring the Campus Diaries logo and a short paragraph about their mission. Another section titled 'The Team' contains a brief description of the team members. The bottom of the page has a large, light-colored footer area.

The page is active at - <http://www.campusdiaries.com/about>

I designed the 'about' page of CampusDiaries during my internship along with another intern (Abhishek R Shetty). As a beginner in web development, I learnt front-end languages HTML5, JavaScript and CSS3 and also gained an exposure to responsive design by reading various blogs and journals.

Initially we prepared rough wireframes on content presentation. We created basic web pages and built over it by adding more features as we progressed. My contributions for the web page include the header image slideshow feature and the smooth transitions for viewing one staff information after another.

One of the biggest lessons I learnt during this project was that a clean UI with simple features is more beautiful and well accepted than a page with too much information and design.

We also, developed a drupal event web age for Campus Diaries by the cancellation of the event stalled the project.

TECHNOLOGIES USED :

Languages: HTML5 CSS3, JavaScript.

Libraries: Masonry, JQuery

TEXTOR

Feb. 2013 - May. 2013

I collaborated with a friend for this Computer Graphics mini project to design and develop a full-fledged text editor that had all the functions provided by a simple editor. Our main intention in implementing this project was to understand how simple editors actually worked and rendered the text.

This editor supported the following functionalities:

- Font change
- Font color change
- Background wallpaper change
- Cut
- Copy
- Paste
- Delete
- Undo
- Redo
- Save
- Save As
- Open documents previously created using textor

(TOP) Change of font color using the menu options.

(BOTTOM) Multiple graphical wallpapers supported by textor to make the application more aesthetic and interactive.



I worked on the first six functionalities while my team mate worked on the last three. For functions like 'cut' and 'paste' we had to take into account the width of a character in the fonts we supported, to make the selection of text work correctly and pasting lines of text required proper calibration to push the previous text to subsequent lines.

We used OpenGL library to display text, menu's, graphical wallpapers and to capture the user input by the position of the cursor at any given time. The logic for various functions was coded in C++.

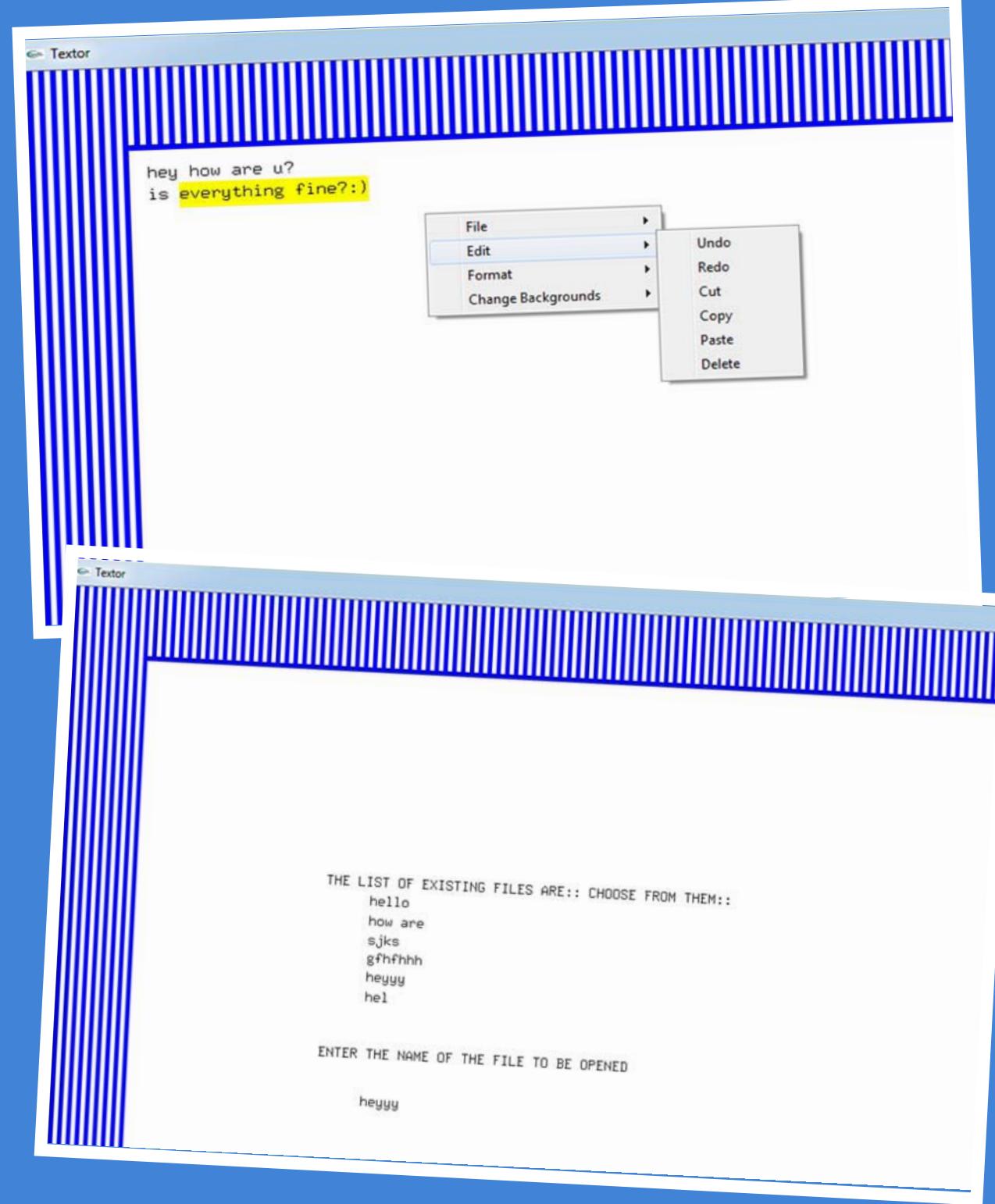
This project was part of my 5th semester course work during my under graduate study.

TECHNOLOGIES USED :

C++ programming language, OpenGL library, Visual Studio software

(TOP) Menu options in textor

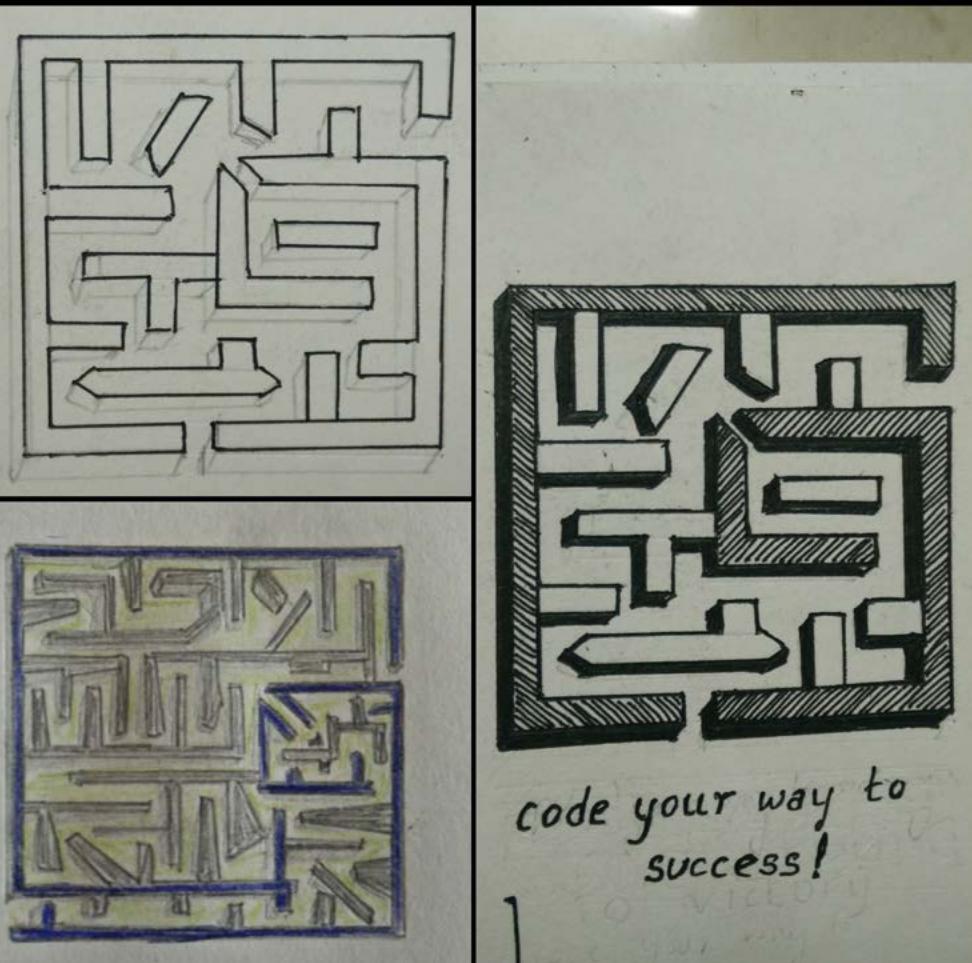
(BOTTOM) Saving a file using textor



CODEGROUND LOGO/POSTER DESIGN

Nov. 2015 - Dec. 2015

During my time at Abyeti, out of personal interest I designed logo's and posters for Code Ground an online web test hosting platform, formed by employees at Abyeti. While the logos are still under consideration, the posters are available at <http://goo.gl/CGqHRR>.



CODEGROUND Presents “ ONLINE CODING CONTEST “



Date : **12-12-2015**
Day : **Saturday**
Time : **2pm - 4pm**
Subscribe at
<http://goo.gl/CGqHRR>

Come test your coding skills and win exciting prizes



Subscribe at <http://goo.gl/CGqHRR>

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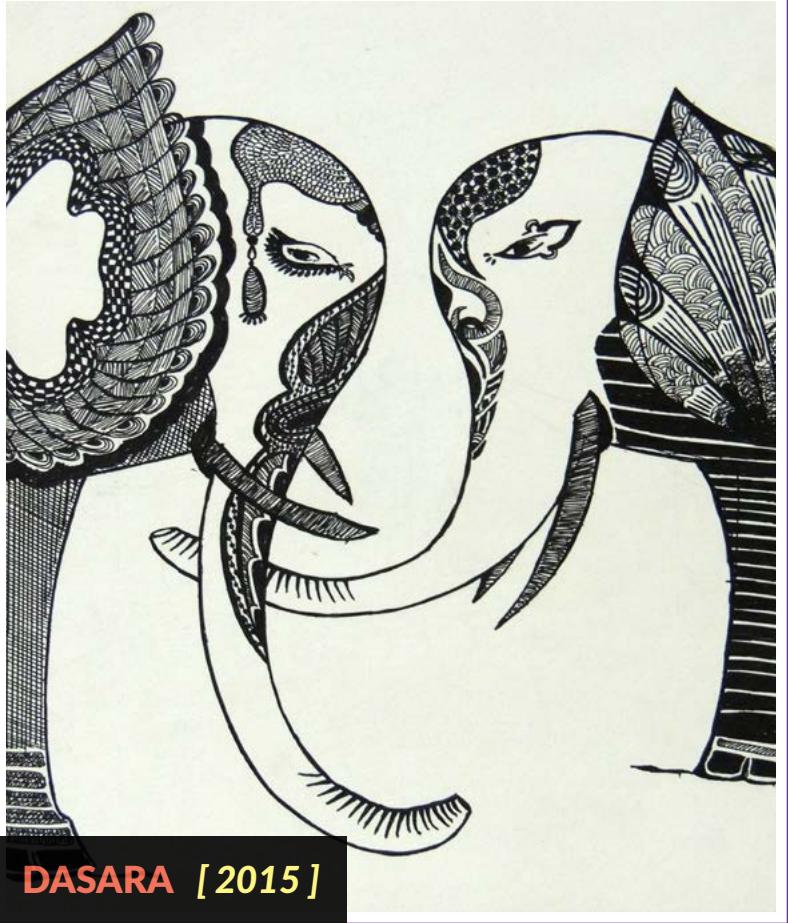
CRAFT / ARTWORKS



The middle piece of both art work is a shape that is used in traditional Indian designs. Mehendi is a henna product used to color hair or draw designs on hand. My mother drew similar shapes on my hand during festive occasions. The idea here was to design two analogous shapes in a totally different manner. These designs were made using gel pen and paint. The striking black piece is a stone I collected from my old sandals.



PEA-FLOWER [2010]



DASARA [2015]



FLORAL ENIGMA [2015]

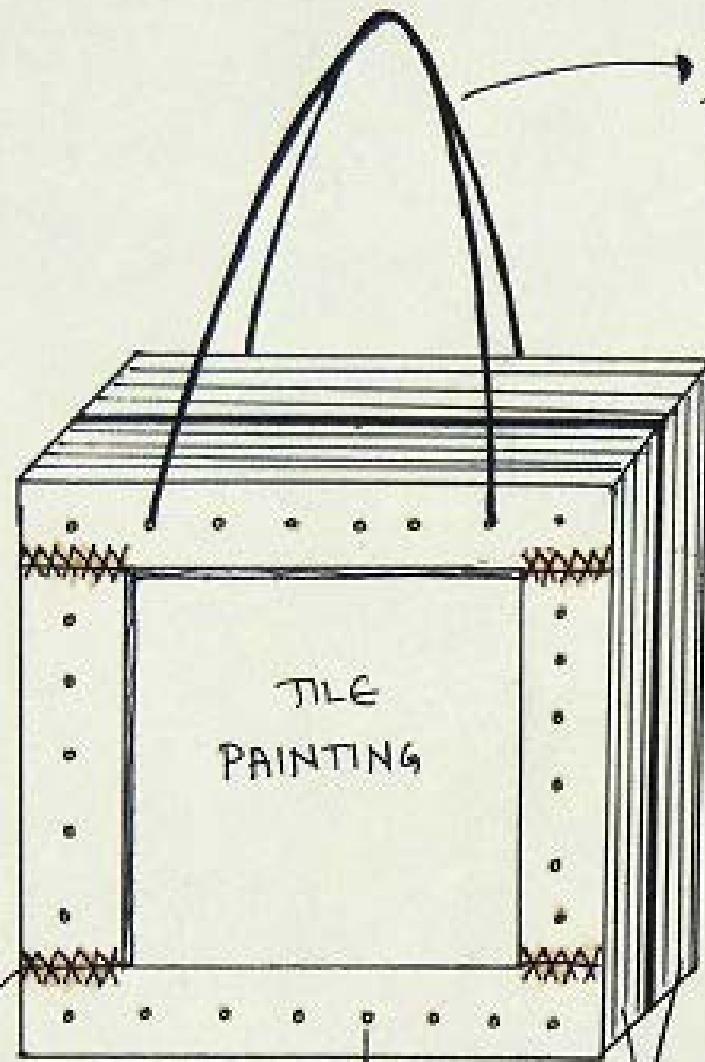
(TOP LEFT) An illustration of a flower inspired by peacock feathers using gel pen and broken bangles.

(TOP RIGHT) A representation of the elephants decorated during 'Mysore Dasara', a grand festival held at Mysore every year where the elephants carry the idol of goddess 'Chamundi' from the temple to the palace.

(BOTTOM RIGHT) An exploration of 3-D art by creating petals through stitching and colored stocking material.

I like to reuse objects perceived as waste in my artwork be it a broken bangle, an old shoe stud, earrings or any object that can add more value to the artwork.

TILE
PAINTING
FRAME
STRING



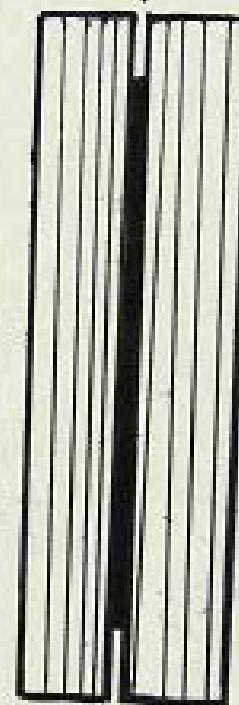
STRINGS
To HOLD THE
PAINTING

POLYETHYLENE
FORM

STITCHED
USING A STRONG
THREAD TO HOLD
THE

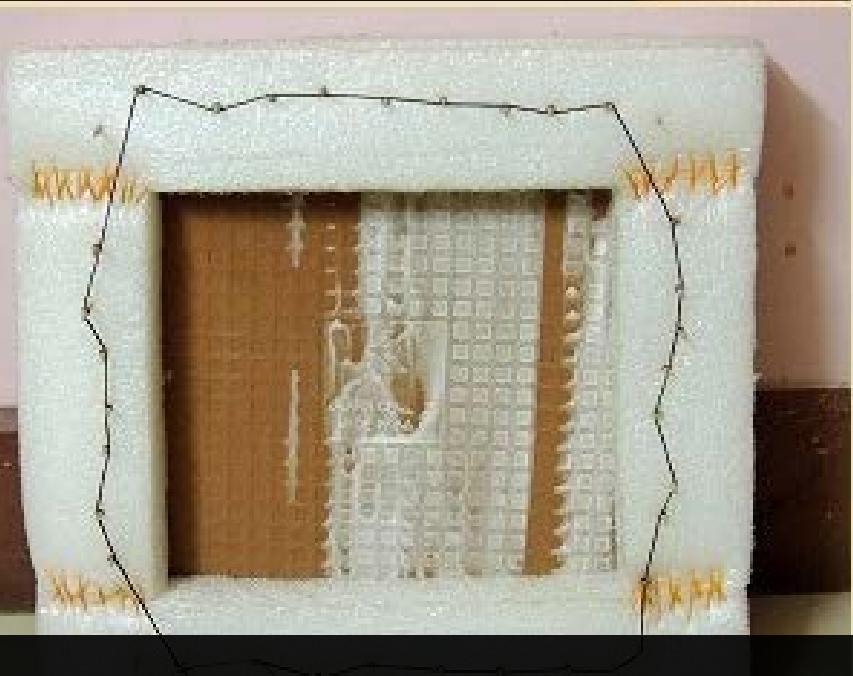
TOOTHPICK
TO HOLD
2 POLYETHYLENE
FOAM's TOGETHER
ALL AROUND

TILE, COMFORTABLY
HELD BETWEEN
2 POLYETHYLENE
FORMS



POLYETHYLENE FOAM

BACK OF TILE
STITCHING
THAT HOLDS
FOAM
TOGETHER
STRINGS
LOOPED AROUND
TOOTHPICKS TO
HOLD THEM IN PLACE



POLYETHYLENE FRAME [2010]

In 2010, when we bought a new washing machine, it came with polyethylene sponges. My father was about to throw them away but I preserved it and created a tile painting frame with it. Since polyethylene was in a sponge form I figured that it would act like a cushion for the tile. So to hold it in place, I stitched the corners and used toothpicks to hold the edges.

SKETCHES / PAINTINGS

During my free time I like to sketch and learn oil painting.



VESSELS and BOXES [2008]

A still-life scene sketching



SILENT NIGHT [2015]

My version of the 'Silent Night', a painting by Marion Dutton, created while learning oil painting from her online tutorials.

MEMOIRS OF A GEISHA



GEISHA [2009]

My rendition of the front page of the 'Memoirs of Geisha' book by Arthur Golden.



INDIAN HORNBILL [2009]

A sketch of an Indian Hornbill created during an art class by looking at its photograph.

APPAREL DESIGN

Here are some of the clothes designed by me and a few of my rough sketches. I had to bribe my sister Anuha to pose like a model in these dresses :D

For most of these dresses I have just laid out the external look of the dress .i.e what material to be used, how should the sleeves and neck line look and so on. The credit for patiently understanding my ideas and transferring them to fabric, goes to my tailor Mohan, who owns a small shop at Commercial Street, Bangalore, INDIA.

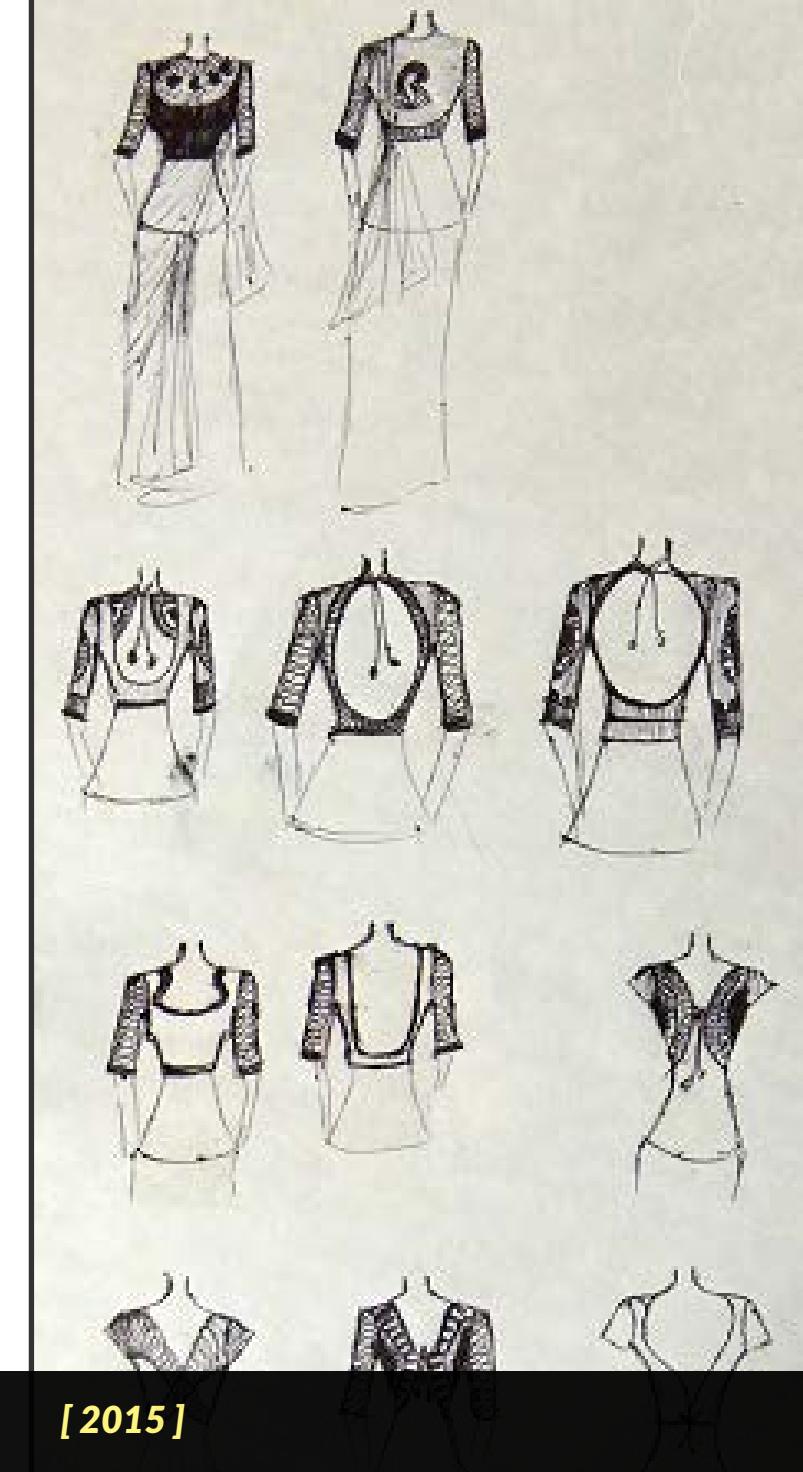


On the left, the beautiful pearl studded transparent fabric adds a touch of sensuality and simplicity to the kurta which was what I had intended to have as a final piece.

The kurta on the right was another 'reuse waste material' project of mine. If the quantity is less, many tailors throw out the remaining fabric after cutting a pattern, but here I have used the remnants (pink and purple strips) of another kurta, to add a tinge of color to the old beige fabric around it.

DOTS
A
N
D
STRIPES

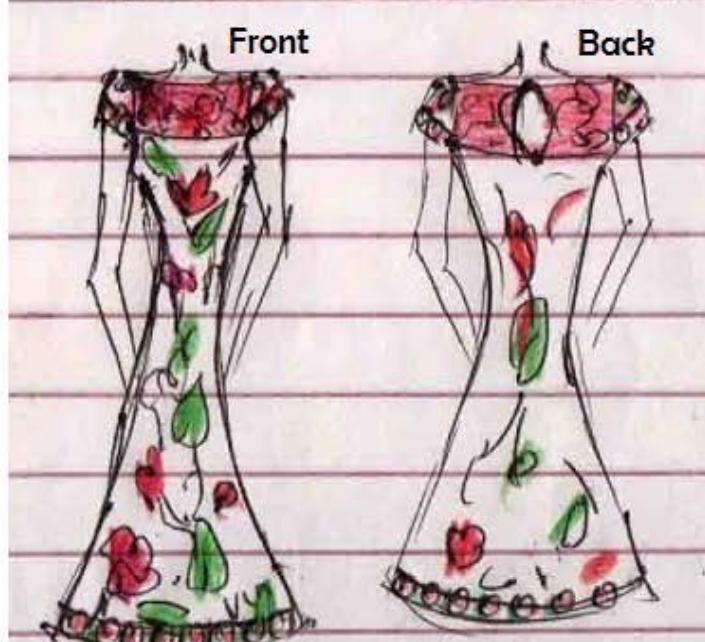




SARI / GHAGRA BLOUSE DESIGNS

[2015]

I usually carry such sketches with me when I visit my tailor or designer as this helps me convey my ideas clearly to them and this also helps them visually understand what I desire to have on the fabric.



LACE HER

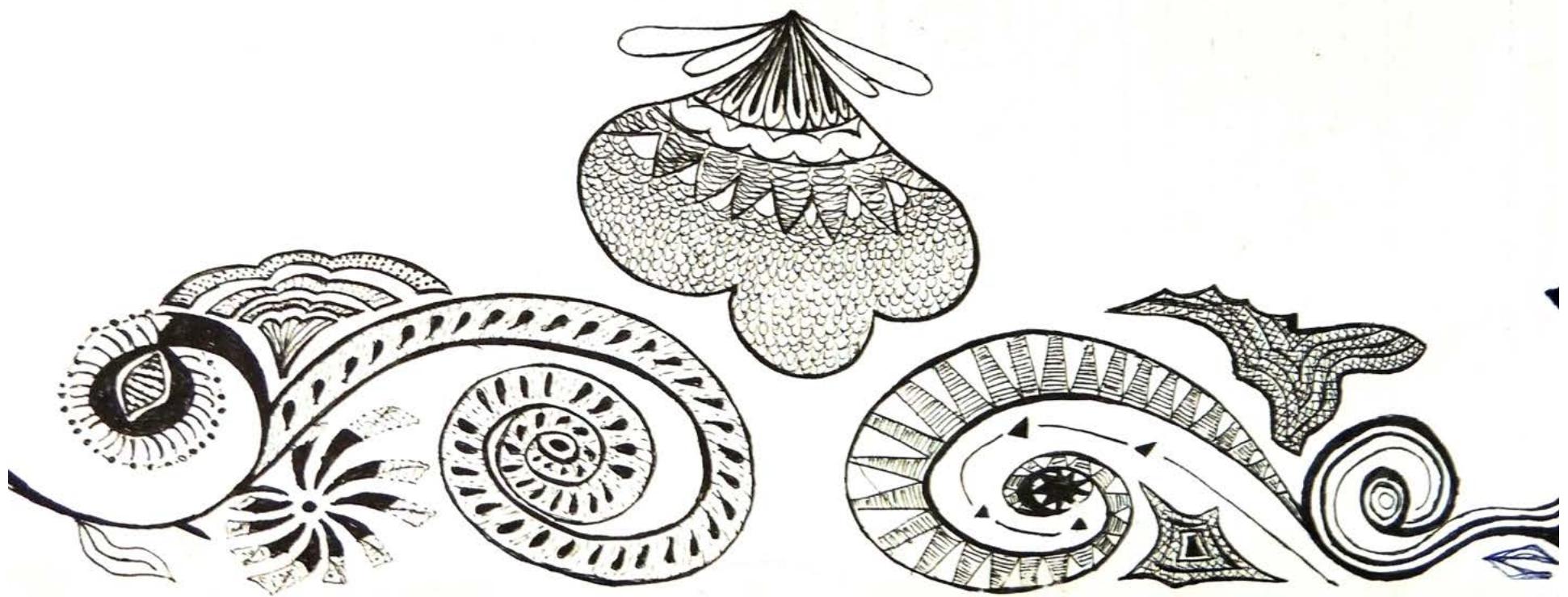
[2013]

These two dresses were designed to reuse some lace material and an old duppatta (its a bigger version of a stole, which is worn on salwar kameez).

The design on the left consists of a large droplet shaped opening at the back of the dress to make it stand out. The design on the right focuses on a see through neck-line with bold embroidery fabric.

The duppatta material used in both these dresses already had prints and embroidery work on them. I just enhanced its look by using a contrasting lace fabric to make stunning kurtas.

Since I usually go to the tailor myself, I never make notes or markings on these sketches instead I explain them directly to my tailor with the help of these sketches and he jots them down in his book or a small slip as a specification for stitching.



END OF PORTFOLIO

Thank You
