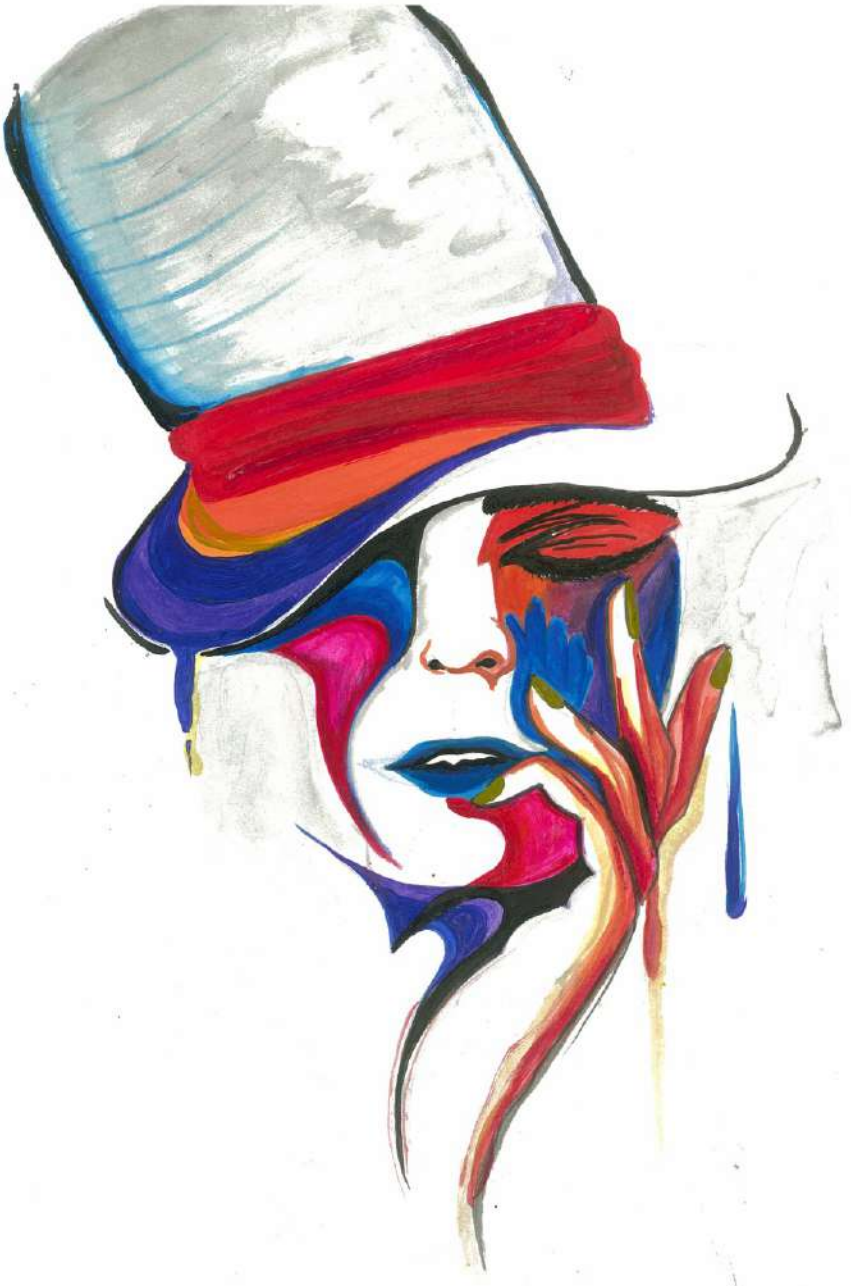
Vol No: 1 Issue No: 2 February 2017



LiveStylz Magazine

Vol No: 1 Issue No: 2 February 2017

LiveStylz

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CONTENTS

WEARABLES, SMART TEXTILES AND NANOTECHNOLOGY

The past few years have seen the introduction of a number of wearable technologies from fitness trackers to 'smart watches' but with the increasing use of smart textiles, wearables are set to become 'disappearables' as the devices merge with textiles.

The textile industry will experience a growing demand for high-tech materials driven largely by both technical textiles and the increasing integration of smart textiles to create wearable devices based on sensors. This will enable the transition of the wearable market away from one dominated by discrete hardware based on MEMS accelerometers and smart phones. Unlike today's wearables, tomorrow's devices will be fully integrated into the garment through the use of conductive fibres, multilayer 3D printed structures and two dimensional materials such as graphene.

The market for wearables using smart textile is forecast to grow at a CAGR of 132 % between 2016 and 2022 representing a US$ 70 billion market. Largely driven by the use of nanotechnology, this sector has the potential to be one of the largest end users of nano and two dimensional materials such as graphene, with wearable devices accounting for over half the demand by 2022.

ICAC ANNOUNCES RESEARCHER OF THE YEAR FOR 2016

The International Cotton Advisory Committee (ICAC) announced Dr. Jack C. McCarty, of the USA, as the winner of its Researcher of the Year Award for 2016. The announcement was made during the world Cotton Research Conference- 6, which was held in Brazil, from May 2 to 6.

Dr McCarty works for the Agricultural Research Service of the US Department of Agricultural and is also an adjunct professor at the Mississippi State University. He is an agronomist/breeder whose research concentrates on cotton's genetic diversity and germplasm enhancement for improving yield and fibre quality.

Ms.S.Manjula
Assistant Professor & Head Incharge, Department of CDF

SELF- HEALING TEXTILES

The self-healing textiles or the automatic repairing gave rise to the innovative idea of self-repairing, gave rise to the innovative idea of self-repairing textile materials. However, the concept of self-repairing has been common in the plastic, ceramic, and metal industries. Hence the self-repairing technology has also found its way into textiles and garments. The ability of a material to heal automatically is the most promising functionality in smart textiles currently in the whole industry. The capability of textile materials and fabrics, can ultimately lead to long lasting products without much maintenance. Such a technology and smart textiles will require fewer resources for structural applications.

An innovative layer of textile coating can now heal materials by sealing small holes and little tears in the surface layer. This technology has originally been made for a waterproof work-wear for professional fishermen. The teams of researchers and scientists from Scandinavian country have developed this piece of intelligent raincoat. The technology uses the plastic material polyurethane, which when applied in the liquid state to the surface of the textile that is underlying in the professional raincoat, eventually hardens. The coating is created by adding micro-capsules that are glue-like substances of the healing agent to liquid polyurethane, and on hardening creates a resilient bond with the textile. Hence, when there is a tear in the coating, the capsules burst in the area that is damaged. The sealant when it comes in contact with the air and water hardens and the coating seals itself. The experiments in the laboratory have produced positive results but there are a few obstacles that need to be cleared before the product is commercially available. The fact that the textile material can heal tears more than a certain millimeters and how water resistant are the micro-capsules in producing the glue-like effect need to be worked upon. Nonetheless, a novel technology like this has a lot of potential in the future of smart textiles.

Mr.K.V.Arun Kumar
Assistant Professor, Department of CDF

Ms.M.Kalaivani
Assistant Professor, Department of CDF

WEAVING COFFEE FABRIC

The process of making coffee fabric remains similar to making bamboo fibre. Manufacturers of coffee infused fabric burn coffee beans to turn them into carbonised coffee. Later, coffee is extruded into an elastane blend. Coffee infused fabric is soft, light, flexible and breathable. Companies are making coffee infused shapewear containing vitamin E, coconut water, aloe vera, algae, retinol etc to increase the bodys metabolic rate, keep the wearer cool, eliminate odour and also to fight cellulite.

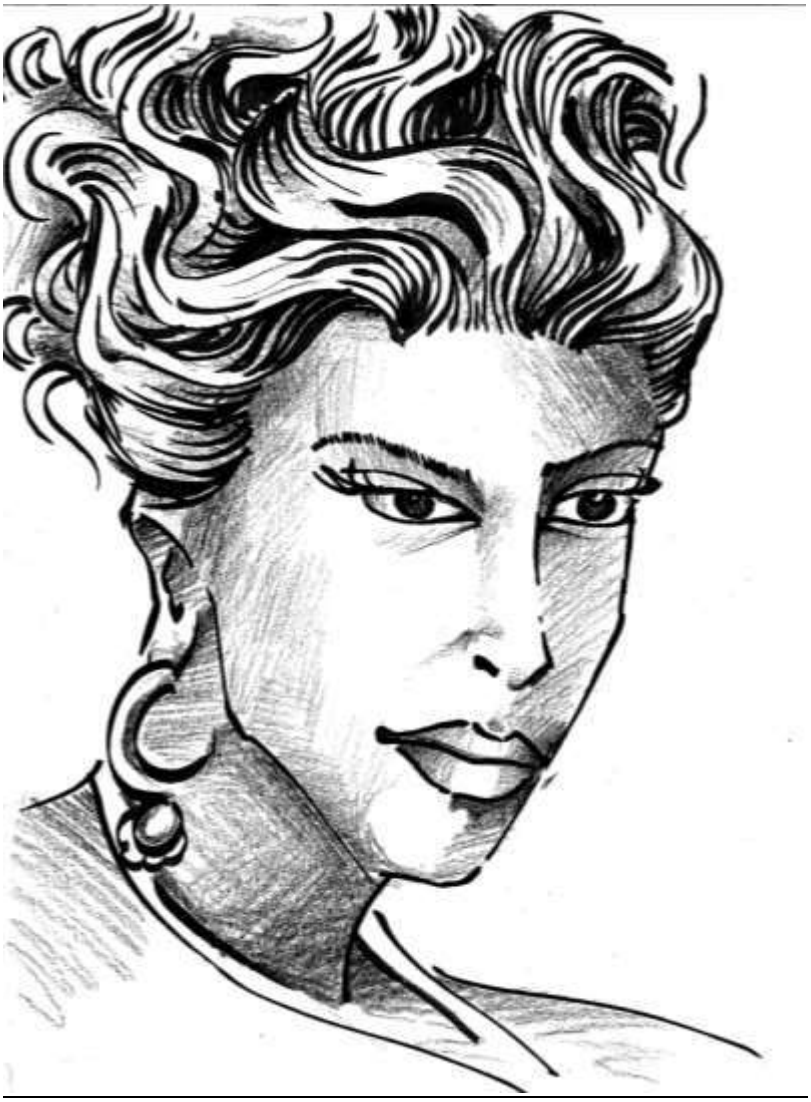
Lingerie companies in France, the United States of America and other countries are among leading brands producing coffee infused shapewear. However, it only takes the grounds from one cup of coffee to make enough material for a couple of T-shirts, so major coffee producing countries like Brazil, Vietnam and Indonesia do not stand to gain much in terms of increased sales.

Moreover, a Taiwanese fabric manufacturing company has come up with another innovative strategy to weave waste coffee grounds into fabric. The waste coffee bean powder is interlaced into the fibre, which is then made into fabric and tailored into garments.Apart from being efficient in energy consumption, the production method of coffee infused shapewear is eco-friendly, requires less resources for its making, does not require high temperature carbonisation for manufacturing and does not involve harmful materials that are generally present in the making of other fabric.

Coffee works its wonder

Various companies manufacturing coffee shapewear claim that it fights cellulite and firms the skin. Lingerie brand Simone Prle of France launched a shapewear range “Top Model” making the same claim. The brand is selling lingerie which has slimming agents. Coffee is the main player. To firm the skin, aloe vera, vitamin E and retinol are also included. The shapewear can be used for up to 100 washes and flattens the stomach and tones the hips. The slimming agents of the fabric are released when the fabric comes in contact with skin.

V.Preethi
III B.Sc. CDF



Mr.R.Raja Kumar
Assistant Professor, Department of CDF

APPLICATIONS OF GEOTEXTILES

Geotextiles are permeable fabrics which, when used in association with soil, have the ability to separate, filter, reinforce, protect, or drain.

Significant applications of Geotextiles are:

- Roadways, parking lots, loading areas and construction sites
- Prevent drainage system from clothing with fine particles
- Fluid transmission
- For waterway erosion control
- Reduce soil piping and embankment erosion
- Prevention of weed growth

- Moisture conservation
- Civil engineering applications includes roads, airfields, railroads, embankments, retaining structures, reservoirs, canals, dams, bank protection use geotextiles as raw materials.
- Geotextiles can improve soil strength at a lower cost than conventional soil nailing.

HEALTHWATCH LAUNCHES WEARABLE ECG MONITORING GARMENT

HealthWatch Technologies has launched a wearable ECG garment with seamless knitted sensors that would allow for continuous cardiac monitoring. Hwear garments with HealthWatch's proprietary technology, enables automatic self placement of electrodes, removing the need for medical professional guidance and are available in 3-15 leading ECGs versions. Further Hwear digital garments are machine washable and saves time.

Dr.N.Radhika
Assistant Professor, Department of CDF

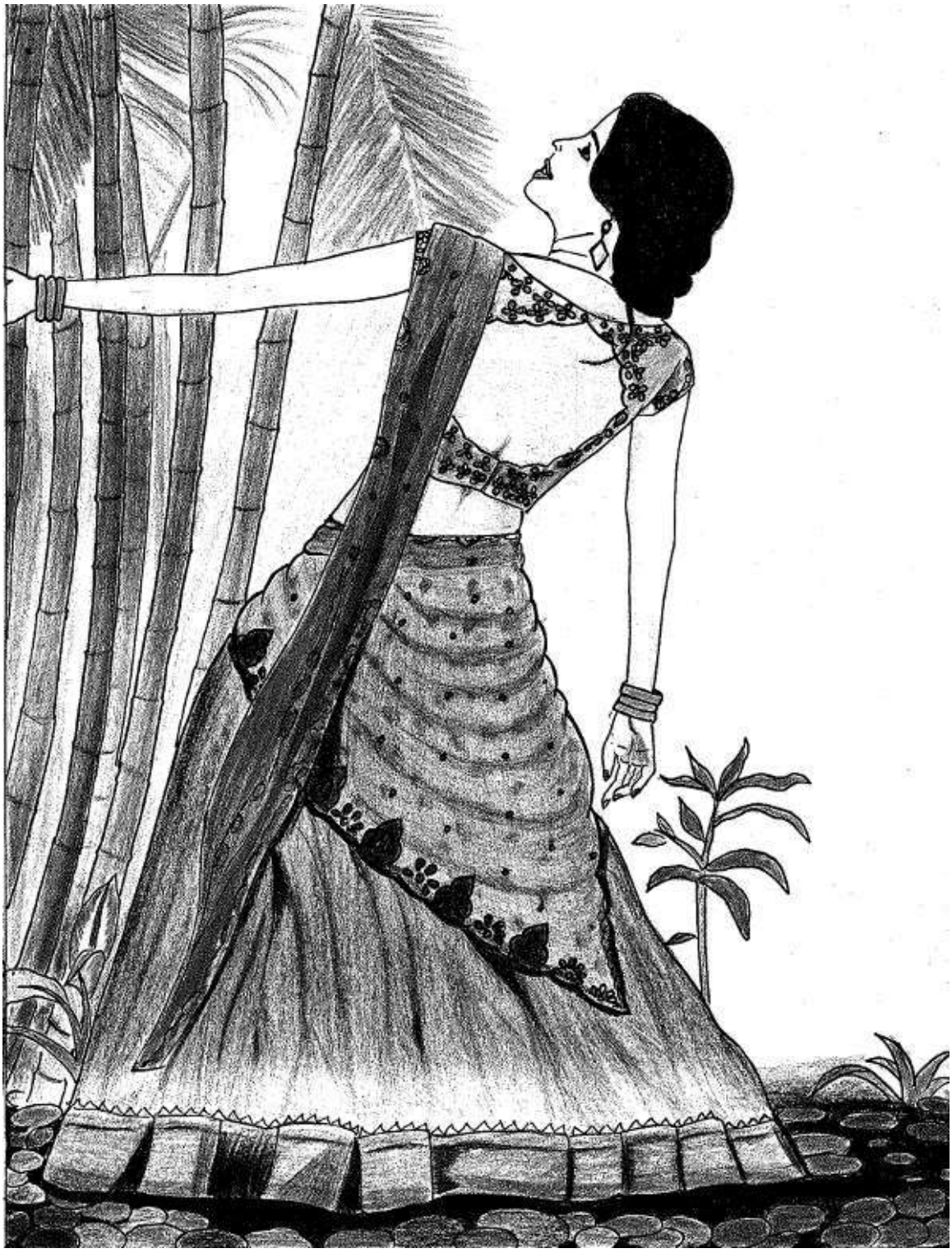
UNSW ENGINEERS WEAVE FABRIC MIMICKING BONE TISSUE

A new smart fabric that mimics the sophisticated and complex properties of one of nature's ingenious materials, the bone tissue periosteum has been woven by biomedical engineers at the University of New South Wales (UNSW). The team is now ready to produce fabric prototypes for a range of advanced functional materials that could transform multiple sectors.

Potential future applications of the materials range from protective suits that stiffen under high impact for skiers, racing-car drivers and astronauts, to 'intelligent' compression bandages for deep-vein thrombosis that respond to the wearer's movement.

Periosteum is a soft tissue sleeve that envelops most bony surfaces in the body. The complex arrangement of collagen, elastin and other structural proteins gives periosteum resilience and provides bones with added strength under high impact loads.

Ms.M.Kalaivani
Assistant Professor, Department of CDF



P.Abarna
I B.Sc CDF

PAPER CLOTHING

Washi is a Japanese paper which is conventionally made from internal bark of either Kozo or Mitsumata and Gampi. It is from Washi that fabric known as Shifu is made. Thin strips from the paper are cut, which are then twisted and woven into fabric. The paper has to undergo treatment under starch made from Konnyaku. It is then crumbled and the process of cutting into strips and twisting it into yarn commences. In Shifu, the paper yarn is used as weft and other yarns are used in warp. Another popular paper fabric is Saganishiki, also known as Saga brocade. The warp in this fabric is the Washi paper, which is cut into thin strips whereas the weft yarn is woven in a twill form. Saganishki is adorned with gold dust or gold leaf patterns, which impart the fabric an endearing richness.

The paper fabric is among one of the most culturally significant fabrics, as the art of paper fabric began in Japan. The final paper fabric is not only flexible, but it is also sturdy to survive several washes. The paper yarn is often used in combination with silk, cotton or hemp. Several varieties of paper mulberry are mostly grown in Northern Japan and these provide fine fibres that are used in making Shifu cloth.

Some weavers have experimented with a technique by using paper as warp. The prospects involving this technique are still being explored. As fabric made from Washi is lighter than hemp, wool, cotton and silk and is washable and soft, it is used as material for Kimono, a traditional Japanese robe with wide sleeves.

The customary Japanese style of Washi included inscription of sutra or characters. The paper cloth is considered precious and with time the craftsmen have skilfully expanded the use of paper fabric. Today it is used in garments, decorative items, furniture fabric, cushions, art, bags, umbrellas, loudspeaker cones, etc. Handicraft items are also made of paper fabric. The weavers have added contemporary style to the traditional paper fabric. These designs cater to the modern needs that demand style, elegance, comfort, easy care with touch of the ethnicity. Thus, today the paper fabric has other meanings as well apart from the cultural significance.

The paper fabric and designs have been mingled with the regions where they are made and the regions from where they originated. Thus, the expertise of one country is infused into the fabric making it an ever-green available option for fashion designers and craftsmen. In recent years, the influence of Japanese weaving and spinning in paper textile has been explored in exhibitions and events held in countries like Canada. The inspiration that the Canadian textile took from Japanese traditional paper fabric is obvious and evident in international fashion shows held across the globe.

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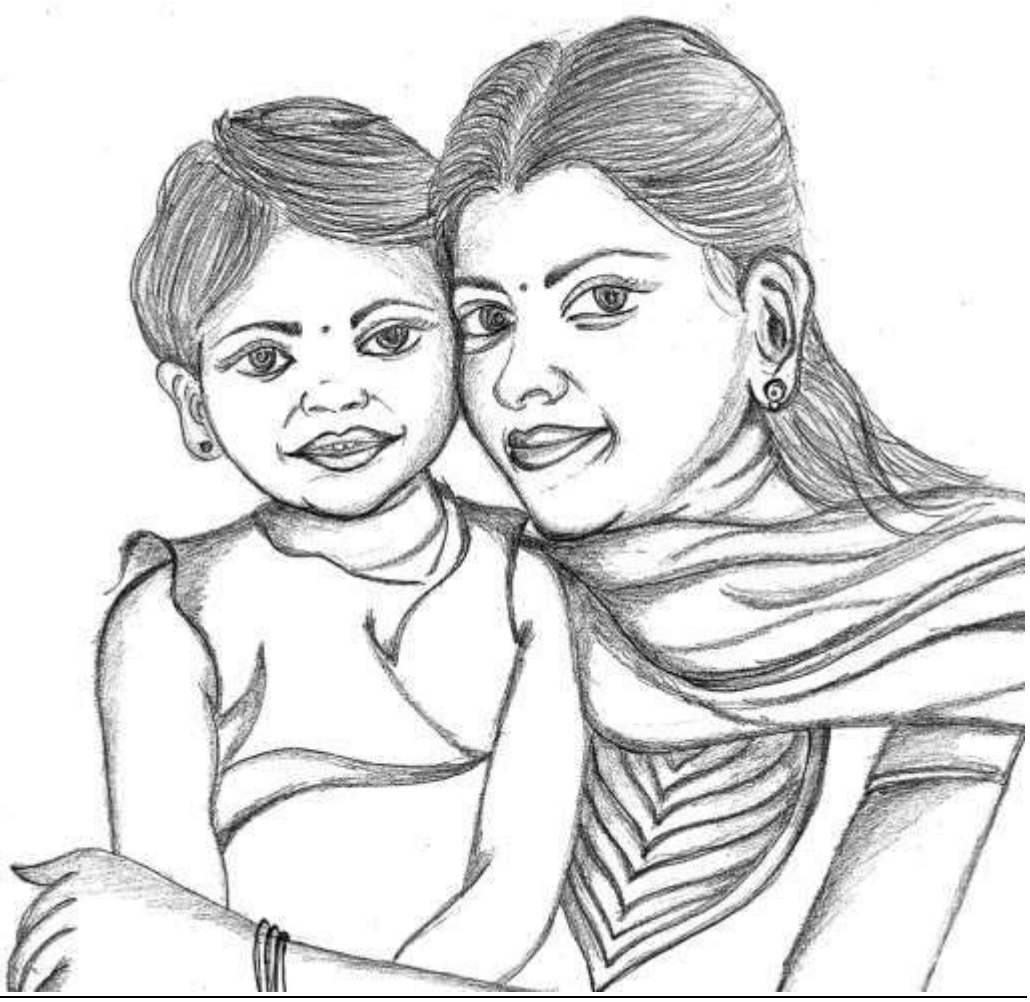

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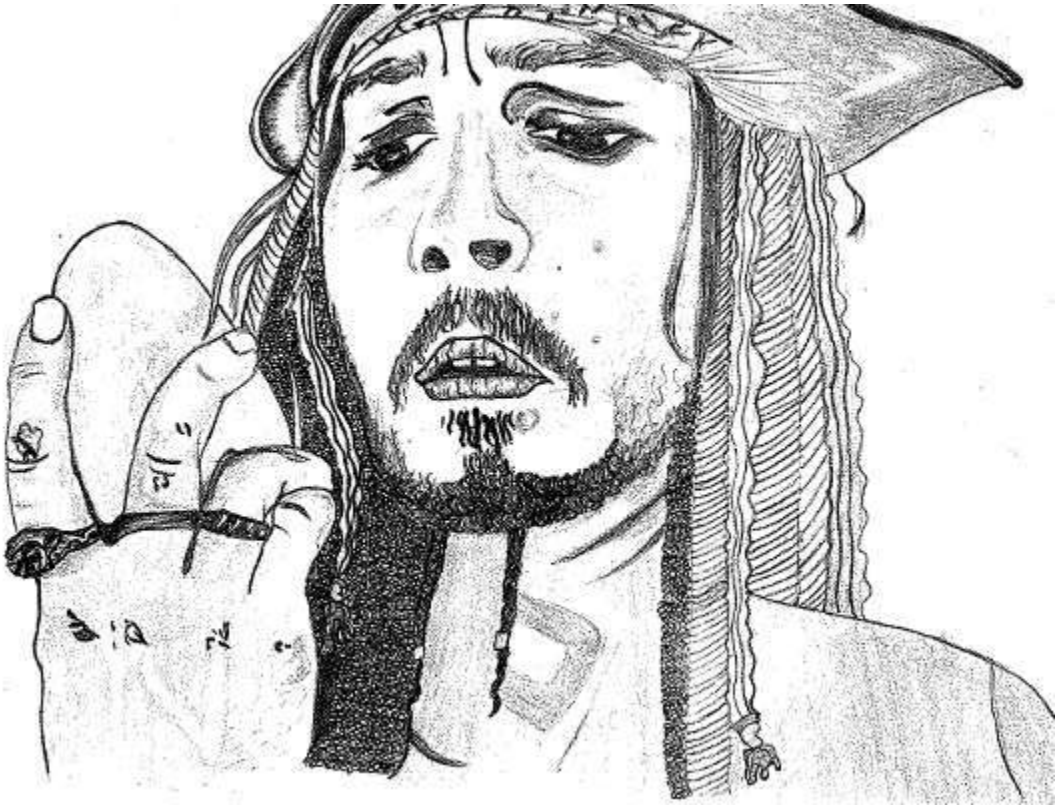

D.Gomathi
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FASHION RETAILING AND MARKETING

Radical developments in fashion production and consumption have occurred over the past few decades. Far-reaching changes have dramatically transformed fashion supply-chain management and distribution at both national and international levels. In particular, radical innovations in communication and information technology have complicated globalization of markets and to changes in the nature of consumer demand.

National and international fashion events are no longer prerogative of just a small number of leading manufactures and key representative of the fashion press but rather are regarded as essential indicators to insure future commercial success.

Large retail organizations are active participants, and through the willing involvement of popular national media, consumers are conversant

with the dominant stylistic themes of given fashion seasons. Fashion designer and catwalk models have become household names, and designer and retailer brand names have become familiar status symbols to many consumers internationally.

Fashion as a subject has become more firmly established in the academic literature, and in recent years, many useful insights have been offered, and more penetrating explanations of the processes of adoption and diffusion have become apparent.

In order to build a conceptual framework to aid the understanding of the phenomenon of fashion, it is important to appreciate the relation between terms such as 'style' and 'fashion'.

J.Dhivya bharathi
III B.Sc CDF

4D PRINTING

4D Printing is a term that seems to appear more and more these days. It is used to designate a technology which allows the manufacturing (with 3D printing) of objects that will change their shape after they have been produced. Often the shape changes because its own environment is transforming; like being immersed in water or by bringing the temperature down.

Inspired by plants that change shape over time when exposed to external stimuli, the team used a special hydromel composite to produce preformed shapes when the 3D print is immersed in water.

In this project, the team from Harvard took cellulose fibrils from wood in order to turn them into hydrogel composites. By carefully determining the position of the hydrogel composite ink using additive manufacturing techniques, it is possible to program the output of the material. That means that the order in which it swells and stiffens over time can be “pre-programmed” into the product itself.

Like wood, which can be split more easily along the grain than across it, the hydrogel-cellulose fibril ink undergoes differential swelling behavior along and orthogonal to the printing path when immersed in water. Combined with a proprietary mathematical model developed by the team that predicts how a 4D object must be printed to achieve

prescribed transformable shapes, the method opens up potential applications for 4D printing including smart textiles, soft electronics, biomedical devices, and tissue engineering. This is particularly true for fashion, electronics medical devices or even aerospace.

Matsumoto suggests that "Our mathematical model prescribes the printing pathways required to achieve the desired shape-transforming response. The curvature both discretely and continuously can be controlled using our entirely tunable and programmable method.

D.Roshini
III B.Sc.CDF

Ms.C.Saranya
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T.Deepachandrika
II M.Sc CDF

STEPS IN BECOMING A GOOD FASHION DESIGNER

PART-1

Honing Your Fashion Design Skills:

- Develop your skills. Successful fashion designers have a wide array of skills, including drawing, an eye for color and texture, an ability to visualize concepts in three dimensions, and the mechanical skills involved in sewing and cutting all types of fabrics.

• Get excellent sewing tuition and understand how fabrics move, drape, breathe, react when worn, etc.

• Learn from existing designers, not just who they are, but their backgrounds, their signature style, the learning that they undertook, where they studied. Knowing this will help you to be a better designer yourself, as you can borrow and build on their ideas.

• Learn how to create storyboards and product ranges. Be good at researching trends through media, comparative shopping and trade shows.

• Start developing these skills at a young age. Be prepared to devote hours of time to perfect your craft. A little bit everyday will make you gain a deep understanding of fashion on the long run if you are planning a career. Trying to do all at once might get you discouraged.

• If you can, it makes good sense to get a diploma or degree in fashion design or a related program. You'll learn a great deal, make excellent early contacts and have ample opportunity to show off your skills in a less judgmental environment

PART -2

Working out which fashion is your passion

- Decide which designing field is your principal interest.
- Downsize your ego.
- Ask your customers what they need.
- Make concessions
- Get inspiration from your competitors.
- Plan some key pieces.

PART- 3

Deciding if the fashion industry is ready for you and assess your skills and personality honestly before pursuing a career in fashion design.

PART-4

- Setting Yourself Up for Success
- Get educated about the business side of fashion.
- Know your customer and competitors.
- Look for fashion design jobs.

- If running your own design business, be prepared to be financially astute.
- Be realistic.

PART-5

Creating Your Fashion Portfolio: Assemble a portfolio of your work. Your design portfolio will be vital when applying to design jobs and internships, as it is your chance to market yourself and your work. Your portfolio should display your best work, and highlight your skills and creativity. Use a high-quality binder to show that you take yourself seriously as a designer. Include the following in your portfolio:

- Hand-drawn sketches or photographs of these sketches
- Computer-drawn designs
- Resume
- Mood or concept pages
- Color or textile presentation pages

P.Mounika
III B.Sc. CDF Vocational

TRUCKER JACKETS

The denim jackets are great when there is an onset of a slight nip in the air, and are just as great when worn under a layer, creating a fashion statement. Opt for any: just team it with slim jeans or khakis, wear it unbuttoned on a loose tee, or like a shirt. This jacket is super-versatile, and an absolute essential to complete the wardrobe.

R.Sudha
III B.Sc. CDF

ANTI-DUST MITE TEXTILES MAY HELP RELIEVE NEURODERMATITIS SYMPTOMS

German scientists tested neurodermatitis patients for dust mite allergy and found that 90% of sufferers were allergic to dust mites, without realising it. This has now also been confirmed in a study from England, which shows how dust mite allergens activate the immune system and trigger an inflammatory reaction in the skin.

Following these findings, the Hohenstein Institute reported that patients suffering from neurodermatitis may benefit from textiles that were proven to provide effective protection against dust mites.

LINK DISCOVERED

Children are most affected by neurodermatitis. They experience symptoms such as red flaky patches of eczema or severe itching. The two studies show that preventing the skin from coming into contact with dust mite excrement, including via textiles, is an important way of counteracting neurodermatitis.

"These are two very important studies," said Prof Dirk Hofer of the William Küster Institute at the Hohenstein Institute, who is researching such kinds of clothing which help people with neurodermatitis or sensitive skin.

"They show a link for the first time – the fact that one and the same allergen can irritate both the respiratory tracts and the skin. They also show that suitable textiles could alleviate the symptoms of neurodermatitis."

INFECTION-PREVENTING YARNS

However, in addition to the effectiveness against dust mites, it is also important to take account of the special requirements that people with sensitive skin or eczema have of textiles, said Prof Höfer. So as a supplementary measure to prevent and treat neurodermatitis, it is

important to use infection-preventing yarns that are not cytotoxic and do not increase skin sensitivity (skin and tissue compatibility).

Textiles should also not contain any mechanically irritating fibres, seams or accessories, should create a microclimate with the best possible textile physiological parameters such as thermal conductivity and moisture absorption and wicking, and should not have any occlusive (air-excluding) areas. Finally, they should also be compatible with treatments such as lotions, the Hohenstein Institute reports.

ANTI-DUST MITE EFFECTIVENESS

Until now, manufacturers of bedding and encasings have mainly been interested in testing their products for "anti-dust mite effectiveness", because textiles that successfully exclude dust mites and the allergens contained in their excrement (Der p1) can protect end users from the attendant symptoms of a house dust allergy.

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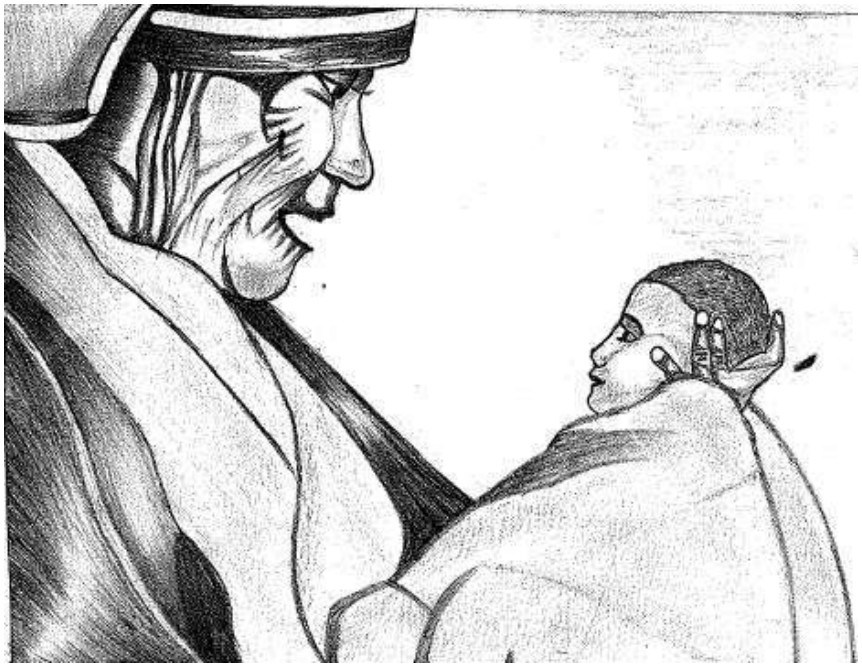


D.Gomathi
III B.Sc CDF

SAREE - WITH A TWIST

The ethic Indian wear is not just for the Indians anymore .Wear your saree with a modern twist, and drape it like a gown. Shown off those curves in the styles that are rocking the ramp,or bring back the old modern style of MUMTAZ. Still not enough? Throw a blazer a crop top, a tube, or anything that catches your fancy, in place of the boring old blouse, and add a whole new, quirky dimension to the traditional 9 yards. Add a belt. Make an absolute fusion to own the saree clad look this year.

Gingham patterns, both large and small, are trending patterns of 2016, and so is the large and flamboyant floral pattern. For the monochrome lovers, there is hand-to-toe white, just waiting to enamour, or the military green that goes with look, from slouchy to skinny. Suede is back from the 70s, while denim is making a comeback, too, especially with the 80s favourite full-denim look. Knits and midi-skirtare among the full trends, and so are the timeless furs and plumes. Thrown in an obi belt or fancy aprons for a more runway look at the lounge party.

P.Rosini
III B.Sc CDF

PORTFOLIO DEVELOPMENT

As young pass outs just from the fashion school, one of the most important things a fashion designer should do is his/ her portfolio development. A portfolio displays the work, done by the designer. Having a great portfolio is very important for jump starting a career and getting jobs. In today's competitive world one has to make a mark for himself/herself. Fashion designers are mushrooming all over and a good Portfolio is one tool to get noticed. A portfolio is an important visual self-promotion and sales tool for any designer, fashion student or creative individual.

Nearly all fashion students will be familiar with the term fashion portfolio. The designer can customize the portfolio as per her/ his needs, portfolios are found in varied sizes and formats. What is important is they should be portable and easy to handle, all the works of the designer should be highlighted.

Two important steps to remember while developing a fashion portfolio:

COVER PAGE: Designing of the cover page of a portfolio is one of the most crucial jobs while working on portfolio development. The cover page can be simple or rather should reflect ones personality. It can be arty and finally should be able to capture the curiosity of customers to look deeper into the portfolio file.

MOOD BOARDS: Creating mood boards on the themes worked by the student designer can add weightage to ones portfolio. Mood boards should be able to tell your design story. Designers can use variety of images to accomplish this. Research photos, historic as well as current trends can be used to show the designers creative process.

P.Mounika
III B.Sc. CDF Vocational

LATEST INNOVATION

As fabric design and development moves forward into the 21st century, there seems to be no end to what textiles can do. Technology in particular has been rapidly expanding the capabilities of fashion and fabrics.

A project developed by researchers at University Laval-they have created a new smart textile that is able to both monitor and transmit the bio-medical information of anyone wearing it.

On the surface, the material looks like a beautiful, intricately woven fabric. While lovely in and of itself, closer inspection reveals much more to this textile.

Amidst the cotton and wool yarns lie some more unique threads, which contain layers of copper, polymers, glass and silver. Together, these materials create a fiber that act as both sensors that pick up information, as well as the antennae that transmit it.

A antenna that has been woven into fabric seems unlikely to work very well, however, this durable and malleable yarn not only weaves seamlessly into the material, but signal quality compares favourably with commercial antennas.

The resulting fabric is capable of collecting all kinds of data. In fact, the surface of the sensor fiber can be tweaked to measure a variety of information, including glucose levels, heartbeat, brain activity,

movement, and spatial coordinates. Once the data has been recorded, it is transmitted through wireless or cellular networks. This fabric could have number of highly useful applications.

It could allow hospitals to monitor chronically ill or elderly patients, and could serve as an alert in case police or firemen are injured while on duty. It could also be of interest to sportswear designers, as the textile monitors vitals and movement in an unobtrusive way.

Exciting as this is, the fabric is not quite ready for release yet. Availability of a wireless connection and power supply need to be researched further. And of course, it must be washable. But testing has proved promising, and we may be seeing this new technology on the market soon.

G.Roopika
II B.Sc. CDF

VIRTUAL 3D DRESSING ROOM

A virtual dressing room is also referred to as virtual fitting room. Having begun to emerge from 2005, fit technologies have been started to be reported from 2010, but are now available from an increasing variety of providers. This actually enables the shoppers to try on clothes to check one or more of size, fit or style, but virtually rather than physically.

Body scanner fit technologies have existed since atleast 2005, when the intellifit system, used by Levi's was introduced.

Virtual Wardrobe means shoppers need no longer to try clothes on-because it shows the latest garments on a digital scan of your body. It was Microsoft's motion sensing technology, KINECT 3D.This interactive mirror shows people how an item of clothing, handbag or accessory might look on them.

Rahul Sood, from Microsoft said: " The relationship between design and technology is becoming even more important when applied to modern fashion startups".It works by motion capture, allowing it to immediately identify a women's size and shape.

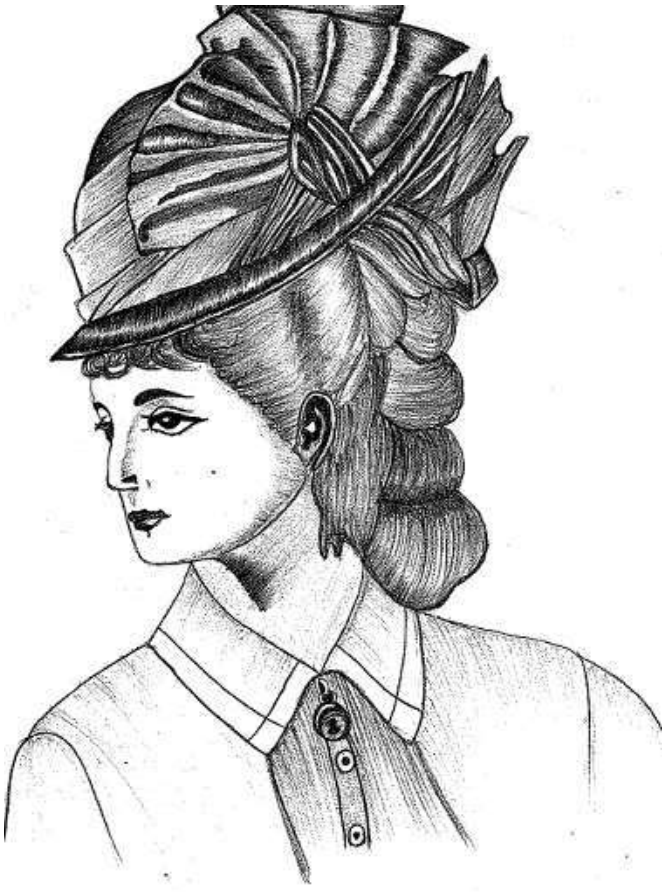
The software then tells the garment how to sit on the body-whether that's how a dress hangs off the shoulders, or how a pair of trousers hangs off the hips.

Even, the customer can share their images with family and friends through social networking sites to gauge their opinion before buying.

This is how it works. Say you go to a store, stand infront of the mirror and ask for dress. The mirror's screen will they show you images from the store's collection one by one, which you scroll or select with hand gestures.

The screen then superimposes the garment on your reflection. The new image moves as you move.

A.Santhiya
I B.Sc. CDF



D.Gomathi
III B.Sc CDF

USE OF ROBOTS IN THE GARMENT INDUSTRY

Reconfigurable robotic handling devices are used in the garment industry. Where parts are singularly collected from flat and delivered to a transport system. The devices are:

- a reconfigurable passive hanger with 3 dof and 3 clamps on/off;
- a reconfigurable modular robotic gripper with an articulated redundant architecture with 3 fingers and 9 dof;
- 3 picking modules pneumatically actuated embedded into the gripper finger tips.

PICKING TECHNIQUE

Each fabric part to be picked at exact locations is decided part by part to avoid folding and minimize wrinkling in hung configuration. High flow-rate vacuum at each picking location is generated with holding forces for safe measures, robust with porous materials like fabric, adaption to curved contact regions.

HANGER

- Hanger architecture and geometry defined from extensive analysis of cut part shapes to support.
- Minimum lateral space requirement.
- Overall cost very low (few plastics and aluminium components).
- Suitable for both automatic and manual operation.

GRIPPER

- 3 actuated arms each with one picking/loading unit at tip.
- Central arm 1 dof; lateral arms 2 dof accordingly to hanger motions.
- Distributed onboard generation of vacuum by new micro turbine modules.

- Interface to robot arm and distributed control unit.
- Interface and docking system to hanger management including reset and configuration, part loading, management of hanger graspers, release to transport system.
- 4 bar linkages in lateral arms to drive picking modules.
- Design solutions for minimum mass.

The robotic hand grasps and mates to the hanger, the group hand-hanger reconfigures positioning the hanger clamps to desired points on the fabric part, picks the part and connects to the hanger. The gripper is moved by a robotic arm. Robot, gripper and hanger cooperate to the task performing. Firstly the mechanisms back to the initial position, and then the grasping device detaches a hanger from the hanging conveyor, and enables its clamps to follow a tag placed on the corresponding grasping device clamp. The tips of the three fingers of the robotic gripper are equipped with picking modules whose turbine fans lift the fabric by mean of vacuum. The fingers lift up and retract, so that the fabric hems shift between the hanger clamps. After that the grasping device freezers and retract, so that the fabric hems shift between the hanger clamps. After that the grasping device freezes the hanger and hands the pattern over it. As soon as the confirmation by the hanger comes, the gripper communicates to the controller that everything is ready to move towards the loading point in the hanging conveyor. The resetting of all I/O channels concludes the procedure. The main routine of the gripper fingers envelops the operative procedure into a while loop: the escape condition is determined by the robot controller.

K. Nikitha
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ALGAE PRINTING

We're really into natural dyeing these days. Recently is the German-based design studio, Blond & Bieber, Essi Johanna Glomb and Rasa Weber, have taken natural printing and dyeing to the next level. They combined art and science to create some unique processes and materials, which could further designer's options for dyeing.

The project, Algaemy is aptly named. Glomb and Weber have been exploring the potential of an interesting dyestuff- microalgae.

While this sounds a bit like science fiction, it is very real and has been yielding some cool results. Together the designers built an analogue fabric printer specifically created for use with microalgae dyes.

Beautifully crafted from breech wood, this machine houses everything needed for the printing process. This includes beakers for algae cultivation, filters for dye, test tubes to experiment with color, even a few rails to serve as a drying rack for printed fabric. Once the algae is grown, filtered and distilled, it can be naturally tinted and made into a dye paste that's ready for printing. Now for the main event: how does this machine print? A large roller wrapped in strips of rubber shapes is attached to the front-similar to a block-printing roller, but much bigger. The entire printer is then picked up and rolled like a wheelbarrow across the fabric to print.

PRINTING WITH ALGAE:

Along with the eco-friendly benefits that go along with using any natural dye and hand printing process, Algaemy dyes have a very special visual effect. The biodynamic nature of microalgae means that the printed fabrics aren't lightfast-however in this instance, that feature is a benefit rather than a drawback. While many natural dyes can fade overtime due to sunlight, Algaemy dyes do not. Rather than fading, they brighten, changing "from green to an intense blue, (or) from a pale pink to a bright red".

T.Varanambigai
II B.Sc. CDF

DEFECTS OF HAIR STRAIGHTENING

Hair straightening is very common in fashion these days. All young girls and boys are going after it without even knowing the damages that are caused by the heat and chemicals.

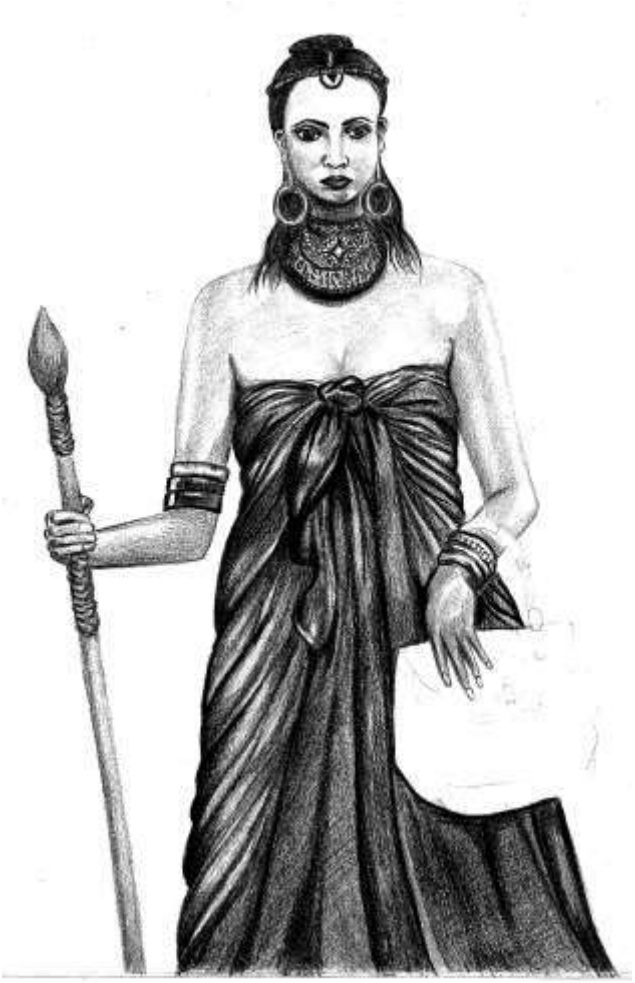
Hair straightening is a part of fashion and hair styling these days. However, it is also true that hair is susceptible to chemicals and heat, which is applied to straighten frizzy hair.

The curlier the hair is, more these products are used and the damage done is comparatively more.

The actual effect of the chemicals and the dryers is that they make the hair dry and that makes it brittle. The hair can get extremely damaged and in some cases they get burnt also.

Silky straight hair needs less chemicals and less frequent ironing. To give the hair a break, other styling can be tried. Hair repair cream can be tried along with the hair conditioner atleast once in a month.

V.Preethi.
III B.Sc. CDF



Dr.N.Radhika
Assistant Professor, Department of CDF

7 ACCESSORIES EVERY GIRL NEEDS TO HAVE IN HER WARDROBE

Every girl should possess some accessories in her wardrobe that are essential for the fall season. With the cooling temperatures, it is imperative that her choice of clothes also shifts accordingly. As it is not possible to go shopping every change of season; it is always good to keep certain clothes handy to tackle the colder months.

The 7 essential accessories:

Boots: Be it a pair of high boots or cowboy ones, these look stylish and trendy with different types of dresses. You can wear skin tight jeans along with these, while leggings will also work perfectly fine. Apart from that, you can also pair your denim skirts with these boots. These boots will actually save your feet from rain and early snow in the winter season.

Black dress: If you have heard that a black dress is essential for every woman, you have heard it right. A sleek and elegant black dress can be worn to any formal occasion like a business party or a meeting. You can pair this dress with any type of sweater you like. The color of your top can be either dark or light, depending on your choice. It can also be worn to a dinner or a party with friends. This dress will make you look just right, neither too formal nor too casual.

A black blazer: You can either choose a formal blazer or a casual one, depending on your choice. However, to be on the safer side, it is better to have a blazer that is a blend of both. As black is a universal color, it is the safest one to opt for. You can wear this blazer on a lunch outing with friends or to a business presentation. Choosing the right shirt or dress to be worn with the blazer is essential for a stylish look. For business meetings, it is best to wear a buttoned shirt under the blazer. However, when you are going out with friends, you can easily slip in a casual top beneath the blazer with a pair of jeans or a skirt.

Purses and handbags: Carrying an oversized bag to a business dinner is a definite no, and a clutch would work better for such an occasion. Hence, it is imperative for women to have different types of handbags with them. Purses, clutches, oversized handbags, beach bags and stylish wallets should be a part of your closet. An oversized bag is good for the

fall season as you would need to stuff the layers of clothing that you wear in case you suddenly start feeling warm.

Scarves and headgear: Well, the best thing about winter is the opportunity to wear different types of scarves and headgear. Woolen caps can be paired with jeans and tee-shirt for a casual and trendy look. Also, you can combine different printed scarves with your blazer or jacket in order to get a cool and chic appearance. You can find different types of printed scarves on Tiger People, which will look good with any winter outfit. You can also try different styles of tying the scarf, which can help creating a variation in your look.

D.Rosini
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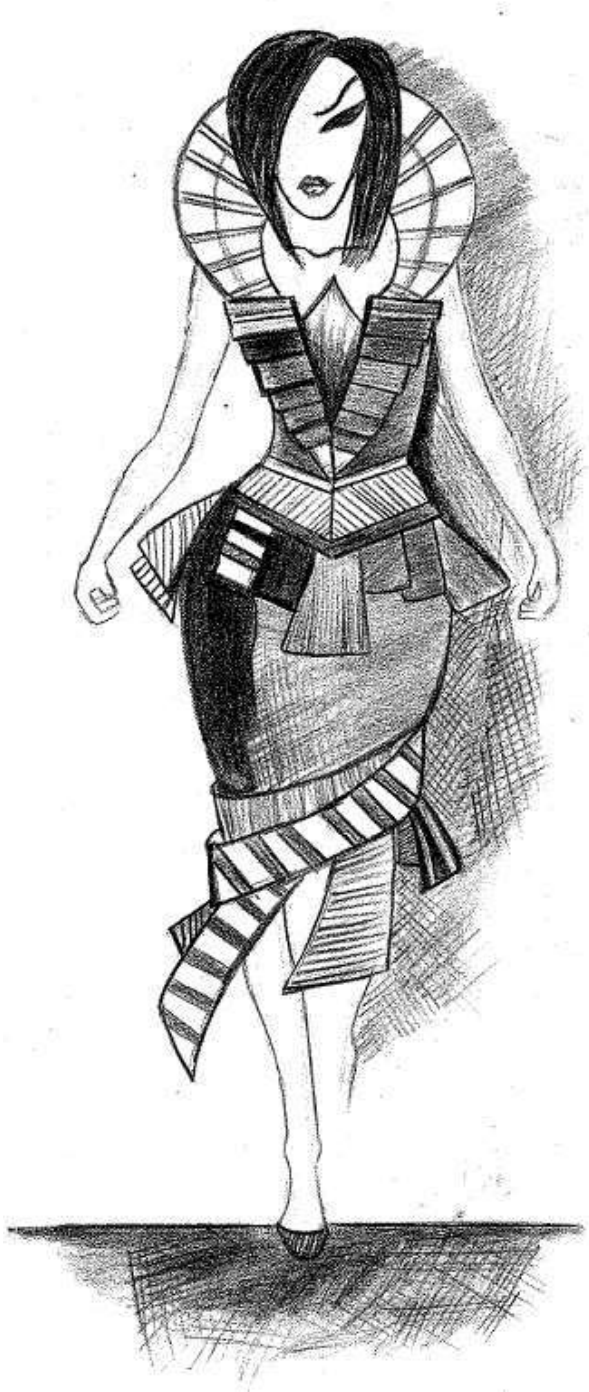
THE TOP FASHION CAPITALS OF THE WORLD

According to the Global Language Monitor (GLM), the following cities were the top fashion capitals of the world in 2012, in descending order:

1. London, England
2. New York, US
3. Barcelona, Spain
4. Paris, France
5. Mexico City
6. Madrid, Spain
7. Rome, Italy
8. Sao Palo, Brazil
9. Milan, Italy
10. Los Angeles, US
11. Berlin, Germany.
12. Mumbai, India

P.Mounika
III B.Sc CDF Vocational



N.R.Anand
III B.Sc CDF

SILK WEAVES

In India, Varanasi is one of the most famous silk weaving centers. Silk weaving is started in Varanasi for producing Sarees, Dhotis and Chaddars for use in worship, Later with the growth of trade and demand for silk fabrics, it began to produce a variety of textiles in silk for personal uses. The speciality of the region is the heavy gold brocade, which has an extra weft of rich gold thread running across the warp threads.

The AMRU SILK brocades of Varanasi are very famous. The Amru sarees are the Butidar ones enclosed by a border and a heavy pallu of flowering bushes or the following mango pattern.

The Baluchar technique of weaving brocades with untwisted silk thread was developed in the Murshidabad district of West Bengal. It is based upon the miniature paintings of India. The speciality of the Baluchar series is the large pallu with a central pattern of following Kalgas, the Mango Design enclosed by repetitive frames of Miniatures. Gujarat is an important brocade center with a class of its own. Silk weaving continues in Ridrol in Metsana District and Jamnagar in Saurashtra in Gujarat. Materials for Ghagras, Skirts, Saris, Cholis and many items for religious purposes are also woven here.

S. Hariharasudhan
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3D PRINTING

3D printed fabrics have been taking their place in the fashion industry in recent months, and for good reason. This innovative technology simplifies production, cuts down on waste, and frankly, is just so cool!

The technology will undoubtedly be improved and developed in a way that will take the fashion industry even further. In fact, one designer, Bradely Rothenberg, is already working on it.

With a background in architecture, Rothenberg has developed an interesting new material he's named "cellular textiles" – so named for the structure of the fabric.

Rothenberg's design studio is not limited to raw material however. His team is also working on creating garments that fit the wearer perfectly.

According to Rothenberg, the technology have been developed to grow these textiles around any 3D shape, so one can take a 3D scan of themselves and custom fit a sweater.

The idea of an easily accessible custom sizing sounds great, especially when it comes to pieces that are tricky to fit, such as jeans.

A.P.Poovizhili
II B.Sc. CDF

BENEFITS AND FEATURES OF BAMBOO FIBER CLOTHING AND TEXTILES

Bamboo fabric is used for a range of clothing, such as shirts, dresses, socks and slacks, and because of it is antimicrobial properties, is ideal for active wear. Bamboo is often blended with 30% cotton to add structure to garments. Bamboo is also used for sheets and pillowcases, because it is smooth fiber lends a satin feel; bamboo sheets also feel warmer in winter and cooler in summer.

NATURALLY SOFT: Bamboo apparel is softer than the softest cotton, and it has a natural sheen like silk or cashmere. Bamboo drapes like silk or satin, yet is less expensive and more durable. Bamboo/Organic cotton blends are also extremely soft but heavier in weight.

ALLERGY REDUCED: Bamboo's organic and naturally smooth fiber properties are non-irritating to the skin, making it ideal for people with skin sensitivities or other allergies and dermatitis. Some people can still experience chemical sensitivities, however, depending on the manufacturing process used to produce the fiber.

THERMAL REGULATION: Ensures that you are warm in the winter and cool in the summer. Bamboo clothing's excellent wicking properties also make it ideal for warm summer days.

ABSORBS MOISTURE: A cross-section of bamboo fiber reveals various micro-holes, allowing bamboo cloth to have superior absorption. This allows bamboo cloth to absorb and evaporate human sweat rapidly. Bamboo fiber is four times more absorbent than cotton.

BREATHABLE: The porous qualities of bamboo fiber account for it is breathability; clothing made of bamboo resists clinging during hot weather or exercise.

ANTI-BACTERIAL: Bamboo fabric contains a naturally occurring anti-microbial agent, kun, that prevents bacteria from cultivating on it, which means it helps keep you odor free.

UV PROTECTION: Bamboo naturally provides added protection against the sun's harmful UV rays.

T.Deepachandrika
II M.Sc. CDF

BEAUTY TIPS

FOR DULL, TIRED AND DRY SKIN: Massage the skin with papaya. Then make a Scrub by mixing Oats and honey along with a little cold milk and scrub the skin. Wash off with ice cold milk and water and pat day.

SUFFERING FROM FRIZZY HAIR: Try this simple quick and easy to make spray. Take slices of two lemon and simmer in two cups of water until it reduce to half the amount. Pour the liquid into a spritz bottle and spray on your hair. Not only will there be a wonderful natural screen but static and fly away hair will be gone.

FOR NATURAL HAIR COLOUR: If you have a brownish tinge in your hair and don't have the time to henna or colour it then take a few springs of rose many from the kitchen shelf and simmer them in 2 cup of water along with 2 teaspoon black tea until it reduces to half the quantity. Mix with ¼ cup of shampoo and every time you shampoo, use this mixture, leave the shampoo in your hair for about 15 minutes and see the difference it makes.

DEALING WITH UNDER EYE BAGS AND DARK CIRCLES: Take used Chamomile tea bags and store them in the freezer. Grate half a cucumber and massage around eye area and then lie down with the tea bags on your eyes for 10 minutes and an instant difference will be found in way one's eyes look and feel.

INSTANT FACE LIFT: Wash your face with ice water or simply rub and ice cube with a tsp of honey and the face. Beat an egg white until it peaks and brush onto your skin and let dry. You will feel the stretch in the skin. Watch with ice cold water.

TIRED EYES: Long hours at work, then shopping and getting things organized for the festive season can be tiring. Take iced spring water in a bowl and add a few drops of rose water, 2-3 drops of honey and immerse one eye into it. You can also open your eye a little and then close it throw away the liquid and make the same water for other eyes and repeat the process. After this splash the eyes with cold mineral water. There may be slight redness for some time but it will go away soon and your eyes will feel refreshed in minutes.

S.Niviya
I B.Sc. CDF Vocational

FINISHING

Fabric finishing comprises many process: Dip Finishing dressing moisturing, Stentering, Shearing, Decatizing, Measuring and Folding. All these operations improve the appearance and quality at fabric, imparting to them certain special features and making them fit for use. Depending on the kind of fibrous material used and on the assortment and designation of the fabric, The number and sequence of these operation may be modified.

The aim of finishing is to make the fabric attractive and of good feel, the purpose of finishing is to increase the fabric service life.

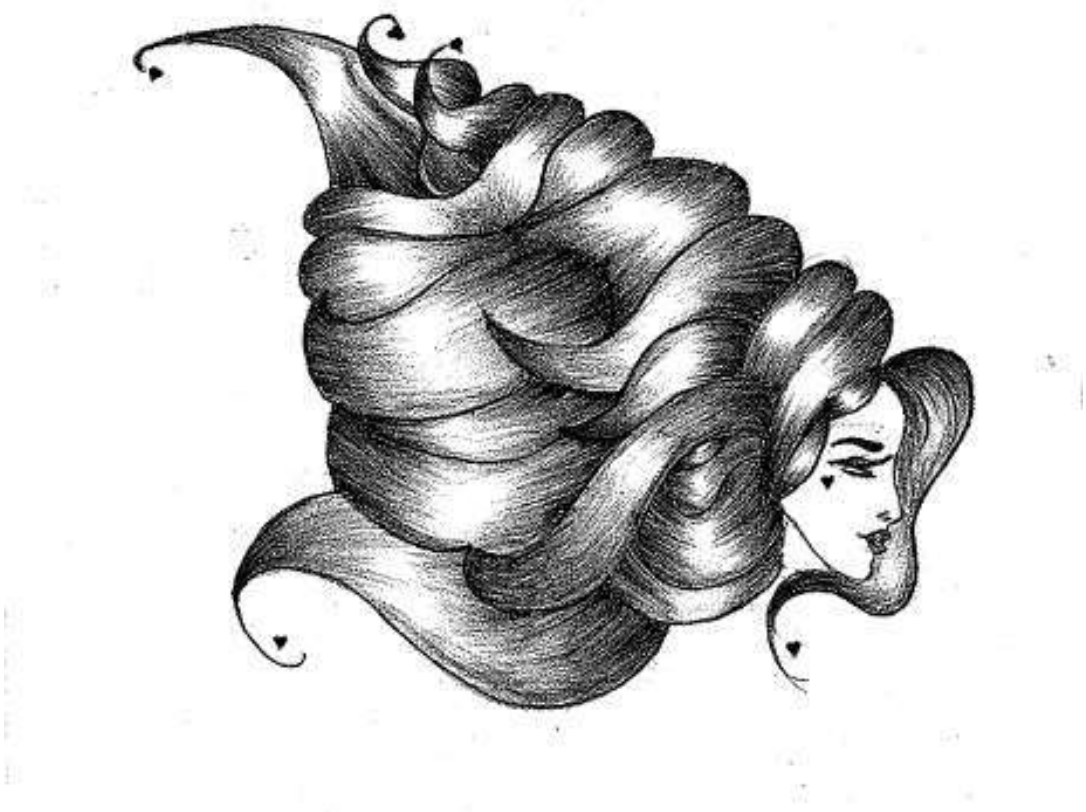
Fabric treated with starch, adhesive and other finishing agents and passed through a calendar is more resistant to abrasion light and weather conditions than unfinished fabric, from which it may not concluded that all fabrics should be subjected to finishing. However, by finishing with the application of usual substances, only a temporary effect is achieved which disappear after washing.

Fabric finishing depends on the following factors:

- Kinds of fiber and its arrangement in the yarn and the fabric (twist, kind of weave)
- Physical properties of the fiber, such as swelling capacity, fastness to wet and dry rubbing at different temperature.
- Sensitivity of fabrics to the action of chemicals.

Numerous research works and experiments carried out in industrial conditions have confirmed the efficiency of finishing fabrics with resins, as they make fabrics anti shrinkable at laundering and improve their wear resistance.

R.Mohan Prasadh
I B.Sc. CDF



D.Gomathi
III B.Sc CDF

TATTOOS

The word tattoo is said to has two major derivations – from the Polynesian word "TA" which means striking something and the Tahitian word "TATAU" which means to mark something.

The history of tattoo began over 5000 years ago and is as diverse as the people who wear them.

In terms of tattoos on actual bodies, the earliest known examples were for a long time Egyptian and were present on several female mummies dated to 2000B.C. but following the more recent discovery of the lceman from the area of the Italian-Austrian border in 1991 and his tattoo pattern, this date has been pushed back a further thousand years when he was carbon dated at around 5200 years old.

Possible Neolithic tattoo marks depicted on a Pre-Cucuteni Culture clay figure from Romania, dates back to 4900-4750B.C.

A tattoo on the right arm of a Scythian chieftain whose mummy was discovered at Pazyryk, Russia was made more than 2500 years ago.

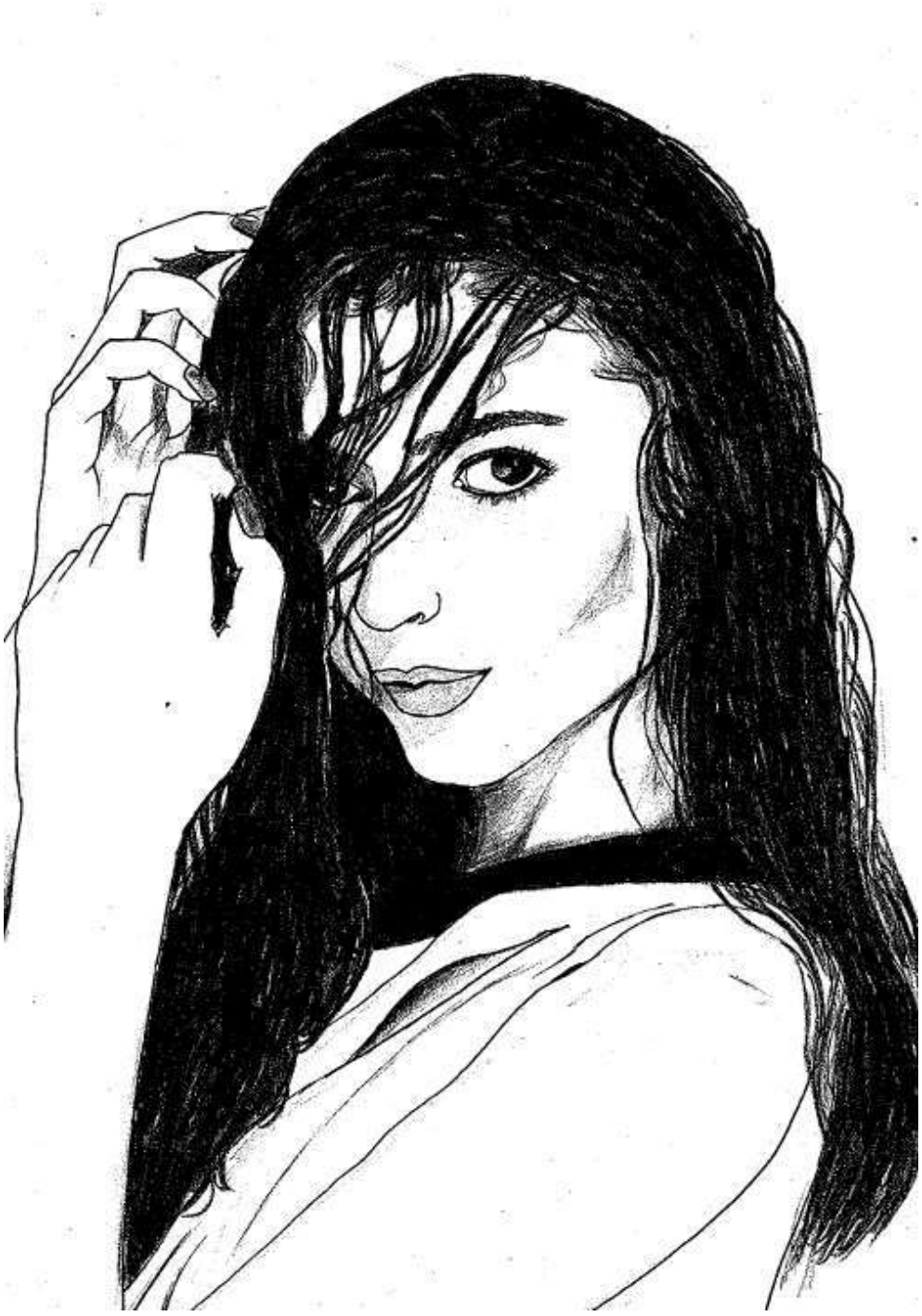
There are different kinds of tattoo all over the world. They mean different things & have all influenced tattoos in today's culture. Tribal styles in tattoo are becoming much more common.

J.Sunmathi
II B.Sc CDF

LINE SHAPES

A-line has been ruling the fashion world for some time now, and its definitely on the rise, especially for the resort season. It looks best when sported with a touch of the 70s for a bit a twist. A playful mix of masculine jackets with modernized floral prints or colourful zigzags, cropped cuts, and high-waisted flared fits or straight – legs trousers worn with trainers, can leave no doubt. A- line jumpsuits, and dresses, or skirts with embroidery, paired with shirts or knits, are feminie, and so 2016!!

M.Komal Rathi
III B.Sc CDF Vocational



P.Abarna
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TOP 10 MOST POPULAR FASHION MAGAZINES IN INDIA

1. Harper's Bazaar
2. Maxim
3. Vogue
4. Elle
5. Femina
6. Grazia
7. Cosmopolitan
8. Marie Claire
9. Women's Era
10. GQ

TOP 10 MOST POPULAR FASHION MAGAZINES IN THE WORLD

1. Elle
2. Glamour
3. Vogue
4. Grazia
5. In Style
6. Marie Claire
7. Harper's Bazaar
8. People Stylewatch
9. Cosmopolitan
10. Look magazine

V.Preethi
III B.Sc. CDF

I AM A BOTTLE JEAN !!

Recycled synthetics, made with everything from plastic bags to beer bottles continue to make a splash. In much the same way that other materials and bamboo are transformed into thread, the upcycled synthetics are broken down into a fine particulate, melted and extruded into fiber.

This jeans is a mix of 25 % bottle fiber and 75 % cotton, the resulting material is soft to the hand, yet is durable and performs as denium should.

S.Nivethashri
II B.Sc. CDF Vocational

SMART TAILORING

Direct Panel on Loom(DPOL) technology, also called Smart tailoring was created by Indian designer Siddhartha Upadhyaya as a way to increase fabric efficiency (by 15 percent) and reduce lead –time (by 50 percent) to manufacture high-end garments.

By using a computer attached to a loom, data such as color, pattern and size related to the garment is entered, and the loom cranks out the exact pieces—which then just need to be constructed. Weaving, fabric cutting, and patterning happen all at once. Brilliant. Not only does DPOL minimize immense waste of fabric, it also helps in saving energy and water by 70 to 80 percent.

T.Varanambigai
II B.Sc. CDF

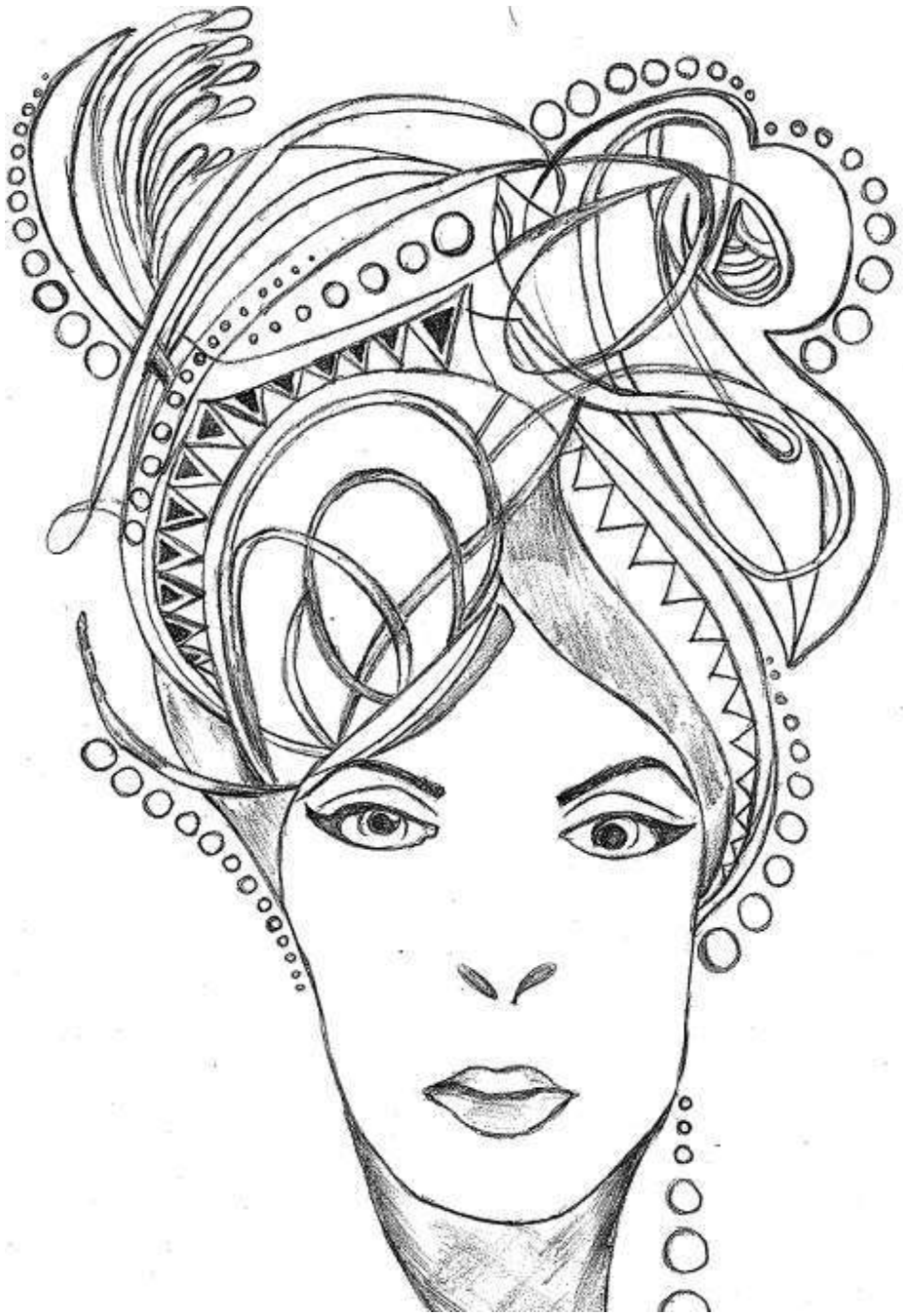
COLOUR OF THE YEAR

This category is for all of pantone's color of the year. Since 1999 members of pantone Inc. have chosen a color for the following year.

As "The Global Authority on Colour and Provider of Professional Colour Standards," the Company puts outs a press release at the end of the year announcing the colour for the following year with an explanation of the reasons the colour will be representative of the next year colour and the colour of past years.

YEAR	COLOR
2000	Cerulean blue
2001	Fuchsia rose
2002	True red
2003	Aqua sky
2004	Tiger lily
2005	Blue turquoise
2006	Sand dollar
2007	Chili pepper
2008	Blue iris
2009	Mimosa
2010	Turquoise
2011	Honey suckle
2012	Tangerine tango
2013	Emerald
2014	Radiant orchid
2015	Marsala
2016	Rose quartz and serenity
2017	Greenery

E.Kanimozhi
II B.Sc. CDF Vocational



K.Dharani
III B.Sc CDF

ROHIT KHOSLA

ROHIT KHOSLA, was a pioneer of INDIAN FASHION. He started his own label in 1987 along with his sister, designer, Rohini Khosla.

He came into the Indian fashion scene when it was still a nascent industry and left his mark. Born in 29th November 1958 to an affluent family, Rohit had always dreamed of becoming a fashion pioneer. He is a Doon school alumni and had also gone to UK for higher studies. In those days, it was actually a brave step to enter fashion, especially when you had such a high profile qualification. Rohit Khosla is the FIRST INDIAN FASHION DESIGNER to launch a HAUTE COUTURE.

However, his family had supported him to the hilt. In his short span of life, Khosla had spearheaded the birth of the Indian fashion industry in real form.

CAREER

In 1987, he co-founded Ensemble, India's popular designer label store in New Delhi, with Tarun and Sal Tahiliani, which started with 5 labels : Tarun Tahiliani , Rohit Khosla , Neil Bieff , Amaya , Abu Jani and Sandeep Khosla.

Many leading fashion designers of India trained under Rohit Khosla, including Aparna Chandra, Ranna Gill, Sonam Dobal, J.J.Valaya.

DEATH

Although he managed to live his dream, but he was short-lived, as he died in 1994.

LEGACY

In 1998, Rohini Khosla published a book on his life and work, titled, "Rohit Khosla, Vanguard" and INDIAN FASHION WEEK paid a tribute to him and further designers like Rohit Bal dedicated his collections to him. The annual "INDIA ZEE F AWARD" presents the Rohit Khosla Award for "DEBUTANTE DESIGNER OF THE YEAR".

V.B.Kavin
II B.Sc. CDF Vocational

BANANA FIBER : A REVOLUTION IN TEXTILES

According to archaeologists, the banana was first domesticated in the Kuk valley of New Guinea around 8,000 BC. Though this is the first known location of banana domestication, other spontaneous domestication projects may occurred throughout South East Asia and the South Pacific.

Historically, banana stems had been used as a source of fibre with the earliest evidence dating to the 13th century. But its popularity faded after other convenient fibers such as cotton and silk were made popular. For centuries, banana fibre textiles were made in Japan and Nepal.

In Japan, banana fibers were a prized substitute for silk and were traditionally woven into ceremonial garments for the wealthy. In both Nepal and Japan, the outermost sheaths of the banana plant were used for making cloth that was not intended for articles of clothing. Coarser banana cloth was used for place mats, floor mats and sun shades.

Initially, people in Japan and Nepal realised that except for the fruit, the complete banana tree is cut and thrown as a waste. After exploring the tree, they figured out that the stalk can be used to make strong ropes. Eventually, they discovered other uses of banana fibre.

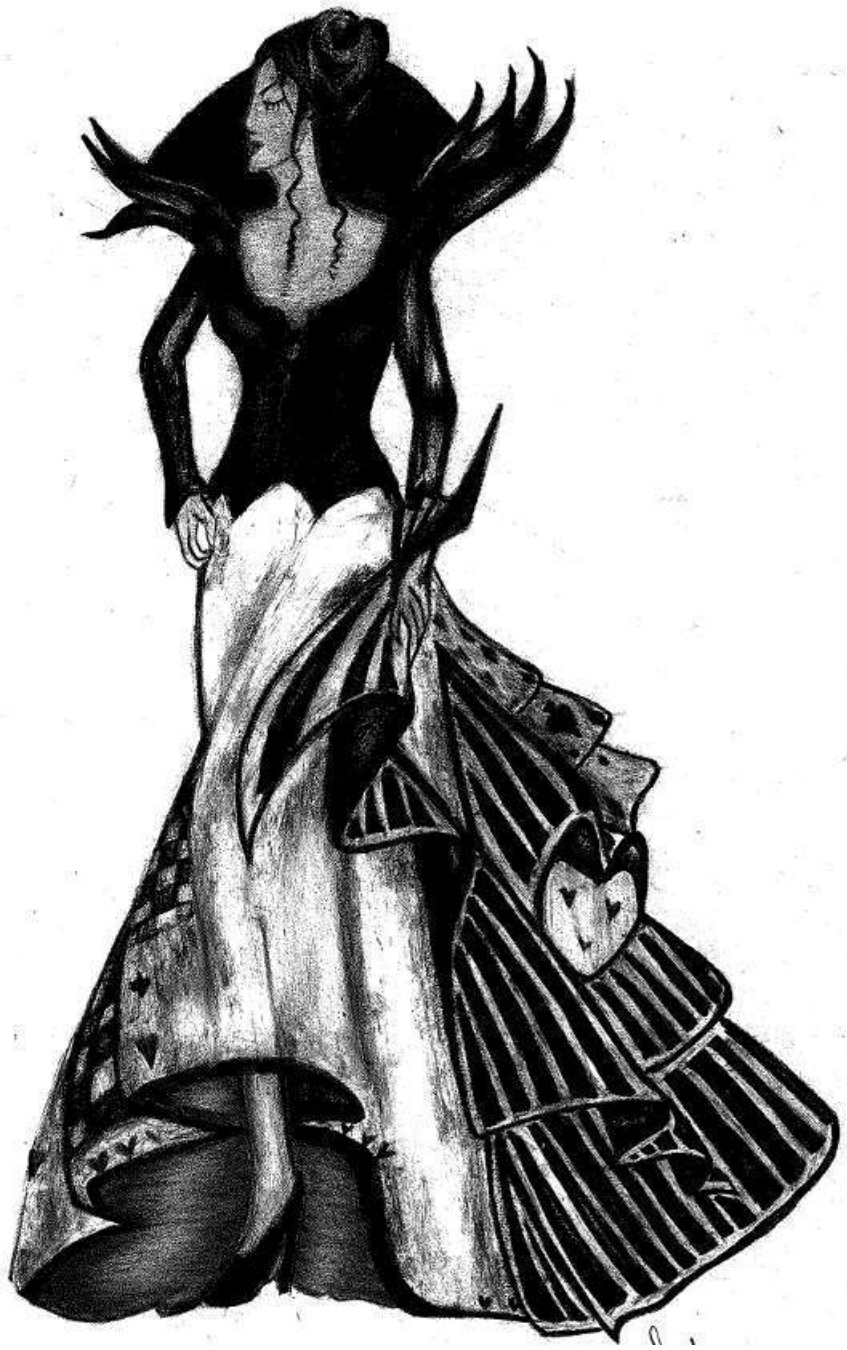
Today, banana fibre is used all over world for multiple purposes. Commercial value of the fibre has increased over the years. Transforming the waste into a usable fabric and other products is a great achievement.

K. Nikitha
I B.Sc. CDF Vocational

CLOTHES MADE FROM ORGANISMS

The design consultancy firm BIOCOUTURE melds biology and fashion, producing stunning clothes and shoes that are not only biodegradable, but can be composted and discarded in the same way as vegetable peelings. The clothes are grown out of organisms like bacteria, yeast, fungi, algae, mixing different together that then ferment and produce a leather-like material.

S.Kaviyasree
II B.Sc. CDF Vocational



S.Dharani
III B.Sc CDF Vocational

NEW FABRIC FOR BETTER SAFETY VESTS

Fabric manufacturing company Glen Raven has recently introduced its new fabric Hi-Vis style 1400 and Hi-Vis Anti-Stat style 1500 to be used in Hi-Vis FR safety vests, which will use its patented no melt, no drip, arc flash and flash protection characteristics. The resultant fabric is a brighter yellow mesh and 1200 Anti-stat. This new fabric passes the ANSI/ISEA 107-2010 and vests made out of this are worn over flame resistant work wear and provide more comfort to the wearer. These vests can be used in the oil and gas industry, electrical, gas utilities, transportation, industrial, highway construction, government and military sector where compliance is important.

R.Anusha
I B.Sc. CDF

PLASTIC GROCERY BAGS

Do you have a wad of plastic grocery bags hanging out in your kitchen somewhere? The designers at Cairo-based Reform studio took notice of this waste and came up with an innovative solution: turn the bags into fabric!

According to reform, the average use of a plastic bag is a mere 12 minutes. It is ironic that an object we use for such a short time is made from a material that takes an eternity to biodegrade.

So, rather than using typical fibers found in textiles such as cotton, the reform team created a durable, eco-friendly fabric using recycled plastic bags as the raw material. The resulting textile is aptly named PLASTEX.

While fashion and fabric industries have become more saturated with sustainable material in recent years, this particular fabric is a standout in many ways. Plastex is highly durable, washable as well. Additionally, plastic bags come in a wide variety of colors, which means plastex does too.

The designers at Reform have put together a vibrant, contemporary palette for their fabric. These textiles also come in a variety of woven patterns-including a faux “zebra” look.

In addition to the unique recycled "fiber", Plastex fabric is woven using a traditional Egyptian handloom. This production method is both eco-friendly and an awesome way to bring a contemporary, relevant touch to an aging textile technique."Slow" techniques such as hand weaving make fabrics that much more special, as each piece is guaranteed to be unique.

J.Hemalatha
II B.Sc. CDF

WANT TO DO INSTANT WEDDING /PARTY MAKEUP AT HOME?

Step 1: Always begin with skincare and then follow up with foundation

Step 2: It's eye foundation time!

Step 3: First comes kajal followed by eyeliner

Step 4: Time to curl lashes and apply mascara

Step 5: Blush, contour and highlight

Step 6: Smile

D.Roshini
III B.Sc.CDF

Front Page was Designed by S.Sri Nivedha
I M.Sc CDF

Do not wait for anybody or anything.
Do whatever you can. Build your hope on none..

–Swami Vivekananda

Department of Costume Design and Fashion

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