



**IFHE**

INTERNATIONAL FEDERATION  
FOR HOME ECONOMICS

# 2020 DESIGN CATALOG

International Federation for Home Economics

## REVIEWS OF DESIGN

### **IFHE Textile & Design Acting Chair:**

Rachel J. Eike, Iowa State University, USA

A total of 17 pieces were accepted through the peer review process for showcasing in the 2020 World Congress of the International Federation for Home Economics (IFHE). Each design was blind-reviewed by 3 reviewers and assessed on:

- (a) Conceptual Review & Concept,
- (b) Visual Impact and Aesthetics,
- (c) Process, Techniques, & Materials, &
- (d) Cohesion & Contribution.

In this international Textile and Design juried exhibition review, 21 submissions were received across all display categories (dress form, wall mounted, or table display), yielding an acceptance rate of 80.9%. Congress themes present in the 2020 Textile and Design digital catalog include: Gender Equality, Responsible Consumption & Production, Clean Water & Sanitation, and Good Health & Well Being

### **External Review Members:**

- Amy Dorie, San Francisco State University, USA
- Pimpawan Kumphai, University of Central Michigan, USA
- Jessie Clayton, Florida State University, USA
- Laura Kane, Framingham State University, USA
- Mercan Derafshi, Indiana University of Pennsylvania, USA
- Armine Ghalachyan, Washington State University Pullman, USA

All Textile and Design submitters were recruited for inclusion in the blind reviewing process along with the external reviewers.

As the 2020 World Congress was canceled due to the COVID-19 Pandemic, Textile and Design submissions are featured through this digital catalog. Submitters may choose to showcase their creative works in the exhibition during the rescheduled 2022 IFHE World Congress, although citation of work should be linked to this 2020 digital catalog.

Every four years the International Federation for Home Economics (IFHE) hosts a World Congress. IFHE is the only worldwide organization focused on Home Economics. It is an International Non-Governmental Organisation (INGO), having consultative status with the United Nations (ECOSOC, FAO, UNESCO).

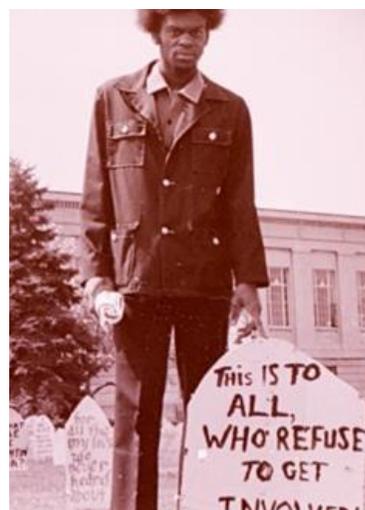
IFHE-US and Family and Consumer Sciences colleagues from across the United States gather to celebrate all scholarship involving disciplines impacting families/consumers. The World Congress events include a pre-Congress for educators, plenary speakers, research presentations, exhibits, opening and closing ceremonies, a welcome dinner, home visits, and a banquet. Additionally, a new event for the rescheduled 2022 World Congress includes a 'Learning Day on the Move', which incorporates educational and technical excursions in and around Atlanta, including the University of Georgia-Athens.

Visit the following link to learn more about IFHE and the upcoming 2022 World Congress: <https://web.cvent.com/event/ec0dcde7-3a47-494c-ba86-269439400fa3/summary>



Abstracts accepted for the 2020 Congress must be resubmitted for 2022; they may be the same, updated or new. New authors are also encouraged to participate. Submissions will be accepted from June 1-August 31, 2021.

The theme of the IFHE 2022 World Congress is *Home Economics: Soaring Toward Sustainable Development*.



## This is to all who refuse to get involved! The vortex of Black protest propaganda

People of the Black diaspora have been protesting for their human rights for decades. Protesting for inclusion and equality has been in the past and continuous to be, a vortex of propaganda. Today, many Black people are living in a second form of slavery—a slavery of poverty, a slavery of conspicuous consumption, a slavery of lack of education, and a slavery of self hate. Our inner city ghettos are the proof! The fact that only 15% of Blacks attain a 4 year degree (U.S. Census, 2017) is the proof! I am calling to action all of my brothers and sisters. I am a continual work in progress striving for abundance. I don't want to be the lonely success—get involved, join me! This piece is inspired by a photograph taken in the 1970s by Kent State University's Emeritus Professor, Timothy Moore. As a student at KSU in the 1970s and through to the current day, Professor Moore rallied for Black human rights. The photograph is of KSU alum, Mr. Silas Ashley ('74), who was standing in front of Rockwell Hall protesting the Vietnam war. He and hundreds of other students created headstones with messages to represent the lives lost in the war. Approximately 125 of the students protesting that day were arrested. After attaining permission from Professor Moore, I manipulated the photo via Photoshop into a reflecting vortex-like print. The message on Mr. Ashley's tombstone along with the Black Power icon created into a flower motif was developed into a print used on the train of the dress. Both were printed on the bias of silk shantung. Mr. Ashley stood in front of Rockwell Hall during the time when the building housed the University President, this was extremely significant, so I was inspired to recreate Jerry Silverman's 1970s dress. Of course Rockwell Hall is now the home to the Fashion School. This work is a commemoration to the social justice protests of the many students past and present. It is also a call to push Blacks toward a renewed identity and purpose.



# Women's Athletic Compression Sportswear

A partnership between apparel design and kinesiology found female athletes are increasingly given compression garments to wear under their uniforms. Limited studies have investigated how females psychologically feel about wearing compression garments. Prior research shows female athletes psychologically adopt new garments to display physical-performance enhancement and to symbolically strengthen their identity and role as an athlete. For years, female athletes have been challenging hegemonic femininity by embracing their muscular bodies while psychologically maintaining their femininity. Yet, garment fit dissatisfaction is still reported by woman athletes, mainly due to their muscular physique not fitting properly into garments made for the public. The objective of our project was to investigate female athletes' perceptions of compression garments by looking at gender and athletic identities, fit satisfaction, and then develop compression garments to fulfill their needs. After IRB approval, 88 collegiate female athletes with experience wearing compression garments completed the survey. They revealed compression garments were gender neutral, did not increase their femininity, barely enhanced their athletic identity, and were slightly satisfied with fit. Prototype compression garments, made with super stretch compression, bonded compression, and a mesh lining, were then designed using drafting, flat pattern, and draping techniques. The kinesiology partner and a professional athlete provided beneficial feedback on movement requirements needed for athletes and fit improvements. Overall a total of 7 prototypes were construction, analyzed for fit with an infrared camera, and performance tested on an athlete. The final prototype garments was then performance tested on 20 women athletes. Feedback on the entire ensemble included a feeling of being "powerful" along with increased athletic and feminine identity, and strong satisfaction on garment fit, mobility, and comfort.

This piece was exhibited and received an award at the 2020 ITAA annual conference. View <https://itaaonline.org/page/DesignCatalogs>, pg. 28.

**Dawn Michaelson, Baylor University, USA**



# Sis Alligator Meets Trouble

Virginia Hamilton, acclaimed author, understood the significance of African diasporic stories to American history. In 1985 she wrote about the Gullah tale, Bruh Alligator Meets Trouble. The story goes—in the beginning, there was Bruh Rabbit who complained about his hard life to his neighbor, Bruh Alligator. Now, when God first created Alligator, he was born with beautiful soft white skin. During their conversation, Alligator boasted on his wonderful life. Rabbit, frustrated with Alligator’s bragging, thought to teach him a lesson. Rabbit asked if Alligator would like to “meet” trouble. Alligator obliged, and on their next encounter, Rabbit secretly ignited the grass field where Alligator was waiting on his friend Rabbit. The stinging of the sudden blaze on the smooth white body of Alligator burned his skin to the rough dry shell we know of today. Stories such as this are often referred to as pourquoi tales because they explain why certain aspects of nature are the way they are. Most lead characters in African fables are male; thus, it was important to interpret this story in the form of designed art from a feminine perspective. The creation of this piece began by draping/drafting the pattern, then cutting the dress from leather. To allude to the transition of soft smooth skin to rough bumpy skin, I used white lambskin on the main body of the dress and embossed alligator leather sewn behind openings of the lamb skin. In the story, the alligator suffered the consequences of being boastful; therefore, brass grommets were used to symbolize the internal emptiness that the alligator felt after its tragic physical transition. To elude the effect of fire, several layers of gold and red tulle were sewn to the lining of the dress. The purpose of producing this work was to promote curiosity of the Gullah people (formerly enslaved Africans) who developed their community on the Sea Islands off the coast of the Carolinas, Georgia, and Florida throughout the 18th and 19th.

# Dior Revisited: New Look in Zero Waste

Abstract form 4 Apparel construction involves unsustainable production practices. Fabric manufacturing involves fiber extraction, yarn spinning, weaving and dyeing<sup>1</sup>. However, typical apparel pattern cutting creates fabric waste. Additionally, brands like Burberry may burn unsold products instead of recycling or discounting to maintain exclusivity<sup>2</sup>. Zero waste fashion design seeks to eliminate fabric waste through thoughtful production planning and pattern cutting techniques<sup>1</sup>. In industry, there are few successful examples. North Face experimented with zero waste coat design in 2010<sup>3</sup>. Some companies re-purpose textile waste from the cutting, but their growth is hampered by intellectual property concerns<sup>4</sup>. Further, many textile production processes are unsustainable. Dyeing textiles requires vast amounts of water, energy and chemicals<sup>5</sup>. Facilities dyeing denim recently faced massive closures in China over environmental concerns<sup>5</sup>. One technique, digital printing, promotes resource responsibility by drastically reducing water used and waste generated in textile coloration. This garment's objective was to apply the sustainable practices of zero waste and digital printing to a garment inspired by the prosperous late 1940s. During this time, Dior introduced the New Look and more lavish silhouettes followed the end of wartime rationing. First, a pocket watch from the late 1940s was obtained to provide a literal connection to the period and expand sensory appeal. The digital textile print was created with dual paintbrush in Adobe Photoshop. Zero waste flat pattern and draping techniques drafted the pattern. The print was placed into the pattern using Adobe Photoshop. Pattern pieces were sublimation printed with water based pigments onto silky faille woven fabric. Hand and machine stitching were used, along with pleating to enhance the garment's shape. Environmentally safe coloration and elimination of waste helps this garment advance sustainable production practices.



**Jennifer Harmon, University of Wyoming, USA**



# Promoting Tourism through Cultural Symbolism in Dress

**Introduction:** Design and Culture have always been closely interrelated, and in many instances, design is exhibited as the true measure of culture, rather than belonging to part of cultural context of the society (Carlson & Richards, 2011). Traditionally, culture is referred to as a pattern that signifies human activity manifested by the arts, music, sculpture, dance, fashion, design, food and architecture, etc. as part of a range of cultural signifiers. Among scholars and research professionals, it is common knowledge that fashion/dress as a research topic in academia is often considered not serious enough and is treated as a marginal area of research, and thus, it does not deserve any intellectual consideration (Kawamura, 2011). Design has become the symbolic totem for showcasing culture, and the official cultural tag at International events such as the Design Fairs, Fashion Shows and Creative Industries, around the world (Carlson & Richards, 2011). **Inspiration:** In fashion design, inspiration for apparel often comes from appreciation of qualities of the world around us. Research and observation are critically important in the fashion business as they provide designers with background information for design. Great Zimbabwe (stone houses) national monuments, the extensive stone ruins of an African Iron Age city and the Zimbabwe Flag were inspirational sources for the outfit. **Objective:** The textile and design exhibit is intended to promote tourism and market Zimbabwe, through wearable art, by bringing awareness to the international audience about the richness of cultural symbols and artifacts in Zimbabwe. The **XXIV - IFHE 2020 World Congress: Soaring Towards Sustainable Development** provided a platform for showcasing the Zimbabwe-inspired design using symbolisms of Great Zimbabwe and the Zimbabwe Flag. Reference is made to the meanings of the cultural symbolisms chosen as design prints on the textile design exhibit. The Great Zimbabwe Monument is believed to have served as a royal palace for the royal monarch (Anonymous, n.d.) from which Zimbabwe is named. **Materials and Techniques:** The ensemble fabric choices were based on the colourful Zimbabwe Flag, with green colour representing agriculture, the vein of 'life', and used as the main outer fabric; yellow stands for wealth of minerals in the country; red symbolises blood shed during the war in the struggle for independence, while black as the main fabric for the train of the outfit represents majority of Zimbabwe people. The white triangle stands for peace, and the Zimbabwe bird being the National Emblem of Zimbabwe (Heimer & Berry, 1995). The ensemble design employed use of design principles and elements in a cultural and contemporary wearable art. Motifs were designed from the Great Zimbabwe infrastructure and Zimbabwe flag symbols, creatively used as elements and principles of design for cultural symbolism in creative scholarship. Furthermore, fabric choices took into cognizance the Zimbabwe flag colours; hence, the ensemble design being a composition of flag colours and sections of the Great Zimbabwe monument, as well as the Zimbabwe bird depicted in the Great Zimbabwe monument and on the flag. The motif print designs, used as embellishment on the ensemble, were created using graphic and photo editing software. The cultural symbolic motif designs were thereafter printed and trimmed around, then ironed onto a cotton off-white train fabric on lower back dress design. The backer of the print transfer was then peeled to expose the design motif(s). These prints served as a border on the lower dress front skirt, and on the train of the ensemble. The multi-layered train consists of three flag colours (green as the outer layer over the off-white and black tier-layered train) with a lettuce-edged hem effect. **Conclusion:** Design modifications were made in the design execution and thus slight changes were made from the initial abstract submission.

**Beatrice Mantyi-Ncube, University of Botswana, Zimbabwe**

# Going, going, gone

The apparel industry causes environmental and social damage across varying levels of production and consumption. The current design work focused on the annual creation of nearly 10 million tons of soft goods waste that ends up in landfills (EPA, 2016) specifically on fabric waste created within a university design classroom. The purpose of Going, Going, Gone was to explore classroom waste and construct a wearable art ensemble inspired by an environmental crisis exacerbated by climate change resulting in the depletion of the Louisiana state coastline. Method. The ensemble was constructed using slow design techniques including reverse and 3D applique as described by the sustainable designer, Natalie Chanin (Chanin & Stukin, 2008, pg. 64-66). The top and skirt were constructed by hand pick-stitching muslin scraps together to create a visual image that represents cartographic images of Louisiana's shoreline. Materials include 100% cotton muslin cutting scraps from a design program at a Midwestern University in the U.S. Techniques include the use of environmentally friendly natural dyes including red cabbage (light blue), blueberries (medium blue), and blackberries (dark blue). The varying shades of blue represent Louisiana's coastline in the past and present, as well as future projections. Conclusions. This garment serves as a method of using textile scraps to create wearable garments within a university classroom setting. Going, Going, Gone contributes too and builds upon the growing body of academic design work related to the exploration and use of textile waste created within university design programs (Eike, 2016).

#### References:

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Eike, R. (2016). Rouge mistral. International Textile and Apparel Association (ITAA) Annual Conference Proceedings: Design Presentation, 12. Retrieved from [https://lib.dr.iastate.edu/itaa\\_proceedings/2016/](https://lib.dr.iastate.edu/itaa_proceedings/2016/)



**Megan Romans, Iowa State University, USA**

## Handcrafted Mauritian Thematic Accessories from Indigenous Clay

The project initiates the concept of 'Go Local' for developing handcrafted fashion and home decor accessories from clay. They are artistically designed and handmade using a thematic approach. The products hint in them elements such as the folklore, sun, sugarcane fields, sea, flora and fauna so innate to the paradise island of Mauritius. A 'doing by making' methodology gives each creation its unique character. New design ideas are expressed in the assorted collections of buttons, beads, pendants, trinkets, brooches, jewelry, and home decor accessories. Creative designs with 'Dodo Collection' revive the lost memories of the incredible Dodo, an extinct flightless bird of Mauritius. The charm and appeal of these adornments contains a significant cultural expression to the wearer. Use of native materials provide an additional niche to these products. Terracotta Clay is sourced, from local potters who use traditional techniques to make the products. The clay is processed by adding materials such as gouge, bisque or rock sand so as to withstand the heat of pit firing. There are no harmful by-products that result from the production of goods made from Terracotta. With an endeavor to preserve the native practices of this community, a touch of modernity is integrated, while making the accessories. Diversified contemporary designs are attempted. The techniques used are simple and do not require usage of any modern equipment. Pieces are hand crafted, press molded and modeled into desired shapes. Mixed media techniques are also used. The accessories are elaborately decorated, detailed and assembled. Coffee beans, herbal oil extracts, well-preserved seeds, cinnamon, rosemary, typically found around the island are used. Cords, twines and strings used are made from the leaf fibers of indigenous and endemic plants such as vacoas, vetiver, pineapple, banana or aloe. They add a chic and folkloric look to the accessories. These 100% authentic eclectic Mauritian fashion accessories are a great give away as souvenirs. This project will serve as a pathway for creating income generating opportunities for sustainable employment and socioeconomic growth of the artisans in particular.



**Anagha, Vaidya Soocheta, University of Mauritius, Mauritius**

# Stellar Regeneration



Stellar Regeneration is a garment produced with an awareness of environmental systems, particularly in relation to clean water and responsible consumption and production. There are many ways that the fashion industry takes a toll on the environment. One issue is the dye methods and disposal as wet processing, which includes dyeing, printing or finishing methods, uses the bulk of the chemicals put into textile production and often ends up in water systems upon disposal (Roy Choudhury, 2014; Karthik & Gopalakrishnan, 2014). Of industrial water pollution, about 20% is from the manufacture of textiles (Chen, 2019). Another environmental problem is an overwhelming amount of fashion consumption and waste. In 2019, there is predicted to be 16.1 million tons of textile waste in the United States (Weber, Lynes & Young, 2017). In an effort to create a garment that improves on both of these concerns, Stellar Regeneration was created using white second-hand men's dress shirts which were dyed some with turmeric, some with cochineal and cut on the bias into  $\frac{1}{2}$ " strips. The strips were then woven by hand in a triaxial pattern creating a star-like pattern. The garment itself is an above-the-knee sheath style dress with long wide sleeves. The only chemical necessary in the dye process was alum which is a fairly safe and the least toxic mordant when used appropriately (Mitra, 2015). This project was able to integrate handcraft weaving techniques, and sustainable design practice, creating a garment designed to inspire others to think about our environment system in relation to sustainable consumption and production methods. Furthermore, this design project was developed to demonstrate creative and innovative ways to change the current existing fashion paradigm from where consumers demand for fast, low priced, trend fashion products to a more humanistic, sustainable, and craft culture.



## Bamboozled as to why people are acting unsustainable!

Throughout the world we consume 80 billion new pieces of clothing each year and we discard them even quicker than before. Today's "throwaway culture" is having a grave effect on our environment and contributing to an un-ethical culture of fast fashion. Through developmental education, people can become aware of their unsustainable habits. For this IFHE World Congress 2020 exhibit garment, the design principles and elements, and creative textile processes have been employed. In my future teaching, it will be possible to incorporate this garment into sustainable development education (Goal 12), allowing students to appreciate how a sustainable material can create a good quality 'on trend' textile from HOLBROOK studio Womenswear Trend Spring/Summer 2018. The fabric utilised is Organic Bamboo Silk Satin. Bamboo is a sustainable material as when it is cut, the plant continues to grow. The silk fabric is produced by the silk worm which lives and dies naturally. The satin is made from the silk. The production of this fabric is ethical as children do not harvest it and fair wages are given. The fabric which will be used for the yoke is crystal organza, which is an upcycled fabric remnant which a colleague had left over from costume making. A commercial pattern (Vogue 8877) was adapted by technical processes such as lengthening the sleeve and adding a button opening on the back. A flowy silhouette was achieved by adding a pleat design. The textile embellishment processes employed were the dying of fabric and PE design (computerised embroidery) was applied to the yoke. The PE design was embellished with sequins left over from a previous college project. A self made bias binding using the Organic Bamboo Silk Satin material was employed to neaten around the neck line and at end of the sleeves.

**Rachel Hastings, St Angela's College, Sligo, Ireland**

# Sustainable processing of alpaca wool



This project intends processing incoming wool from alpacas in the Swiss Alps. The aim is to increase the value of this fibre by producing hand-woven, high-quality fabrics. The processing into a sustainable fabric should give the fine and warming wool the attention it deserves. The fibre is processed in small companies and thus offers these women a sideline. I receive the wool fleece from the breeding of Dagmar Feierabend who lives in Amden. Her farm is located in the Swiss Alps. The animals graze alpine meadows which can no longer be grazed by cattle common in Switzerland because they are too steep. The fibres are carded in a small spinning mill in the Swiss Mittelland and spun into a yarn. From this moment on, the design and further processing of the fibre are in my hands. The fabric design follows the origin of the animals. I was inspired by the lines formed by the mountains on the horizon. In the further course I worked with reflections, until the used pattern crystallized out in a twill weave. In various colour samples, I finally decided on a two-colour variant for the jacket and a single-colour variant for the scarf. Weaving I have woven the fabric on an 8-strong Glimakra loom in my small textile studio, which is located in Othmarsingen, Switzerland. For the jacket the fabric consumption was 2.5 m in 80 cm width. The scarf has a length of 2.5 m and a width of 60 cm. Equipment After weaving, the fabric was bathed by hand and slightly felted.

# The Roaring Twenties



Materials: Acrylic, Shantung Dupioni Faux Silk, Cotton, and Polyester lining fabric, Piping bias tape, Satin luster round glass pearl bead, Embellishment ribbon, Cotton thread, Invisible nylon thread. Techniques: Pattern drafting, Slashing, Machine couching, Hand-beading, Ribbon-twist. The astounding and innumerable styles gave 1920's women unprecedented options when it came to fashion. The main objective of this project was to incorporate fiber arts on an overcoat inspired by the design of the 1920s' which was the era of the revolution for gender equality and unconventional role of women in American society (Reed, 2006). The most stunning thing about 1920s fashion was the shape of the silhouette. Straight shapes were more prominent on the coats in 1920 (Reddy, 2018). Considering that, the pattern for this overcoat was drafted to suppress the curve of the women's body. Roaring twenties fashion gained comfort and popularity while showing off an entirely new and outrageous use of color and decoration (Tortora & Eubank, 2009). Royal purple color of the coat was chosen inspired by the color trend of the 1920s. 100% acrylic fabric was used to construct this overcoat and the dark olive polyester fabric was used for the lining. The whole garment was sewn with cotton thread. Furs and fur trimming was wildly popular in 1920 (Reed, 2006). To emulate a fringelike effect slashing technique was incorporated on the cuff of the coat with the manipulation of five layers cotton, shantung dupioni faux silk fabrics and repurposed threads. The decorative ribbon was incorporated in the center front of the overcoat with machine-couching using invisible nylon thread. The hand-beaded pearls were embedded next to the leafy ribbon on the coat to depict the affluence in the 1920's society. Polyester ribbons with bold green and yellow color were used in-between green bias tape piping on the sleeves to portray the flamboyant nature of 1920s women. The overcoat comes with a pearl beaded skirt which was one of the most common outfits to wear in the 1920s. Overall, each element and color on the coat was chosen to represent the 1920's women's energy, freedom, and way of embracing life.

Gender Equality

**Mushfika Mica, Oklahoma State University, USA**



# The Nature of All Things

Standing on the banks of a spring-fed river, thrust up from the aquifer deep below, a tree that has lived a mere century seems to radiate with consciousness of its part in the materialistic play of life. In the materialist view of the universe, matter is endlessly recycled into new material forms and there is no permanent afterlife other than the reabsorption of matter into fresh life. The poet Lucretius (cc. 99 to 55 BC), in his Latin poem *On the Nature of Things*, depicts the Goddess Venus as the source of the impulse to life but lays out the Greek philosophical concept of atoms, elements and the concept of the conservation of matter. Silk painting exploits the wicking nature of fibers through the direct application of dye with a brush, but unlike screen or block printing, does not lend itself to techniques of scale but rather typifies an intimate experience of contact with the textile. This 35"x35" 12mm crepe silk painting, intended to be displayed on a wall when not being worn as an accessory, captures the Soul of the tree, an interlocking set of 12 rings glowing with the light of an original star that produced at least one of the elements that, being brought from the earth by the seemingly eternal river at its feet, will someday sink back into that river and be carried out into the waiting sea. In the face of the enormity of this cycle, the criticism that materialism is small, literal and pessimistic fades into the glow of the impulse to life.

**Gwendolyn Hustvedt, Texas State University, USA**

# Beyond Speech

How do art and design reflect diverse issues through scientific examination in our world? This project-based textile design with recycling materials shows the value of design education as home economics in our everyday lives. While taking part in the 2017 March for Science in Minnesota, I realized the value of multimodality to express diverse social, environmental, and political issues through art + design works. People in this March addressed diverse issues such as environmental issues, gender equity, and social justice through various media: words, visual images, dancing, and sound beyond speech. I was inspired by diverse people's voices and attitudes to sustain our world by recycling and consuming sustainably. Using recycled materials, I created a T-shirt shaped textile design commemorating what people did in the March. Each color of Nespresso capsules in this design shows diverse meaning (See Figure 3), and the hand-stitched circle on the front represents making better world with understanding diverse issues, and the backside hand-stitches represents sustainable development process.

## Process:

### Natural dyeing with mint

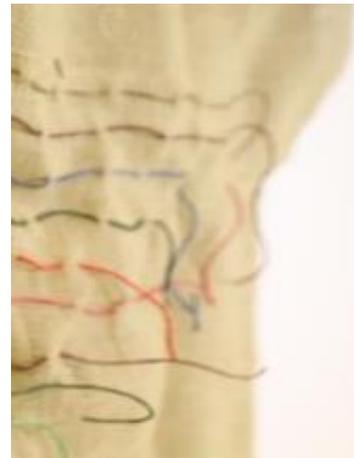
A recycled 100% linen curtain from Goodwill was naturally dyed with mint from my garden. It was soaked in a solution of unsweetened soymilk and water (1:4 ratio) for mordant process. After that, mint leaves and stems were both used to dye in boiling water for green color.

### Recycled Nespresso capsules

Nespresso coffee capsules are made with lightweight aluminum and are reusable. The aluminum foil was removed from recycled capsules to extract coffee grounds. Each empty capsule was flattened with hammer to attach on fabric.

### Combining capsules and hand stitching

Each capsule was hand stitched through three holes, created by Nespresso machine automatically, onto the dyed linen fabric using a large wooden quilting hoop.



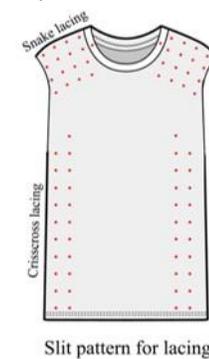


## I love my t-shirt and now so does my daughter: 'Restyle to repurpose' concept piece

The apparel industry significantly contributes to negative environmental impacts and excess waste generation (Zaffalon, 2010). The rate of apparel consumption and disposal has increased over recent years, resulting in an abundance of still functional, unwanted clothing, much of which ends in landfills (Kozlowski, Searcy, & Bardecki, 2018). Transforming non-functional garments gives renewed value to discarded products and is one solution to reduce consumption while diverting textile waste.

T-shirts are common in the U.S. wardrobe as they are inexpensively manufactured and customizable. Wearing a t-shirt may be considered a uniform that communicates allegiance to a certain school or university, membership in a particular organization, or 'person of contact' in a volunteer or event setting. Families are increasingly involved in different school and community events, so it can be assumed that closets and drawers are cluttered with numerous used, yet functional, undervalued t-shirts. Researchers have suggested sourcing used clothing as a resource for new product development, however, no formal process has been tested (Hawley, 2009). Therefore, the purpose of this piece was to trial a repurposing design process concept in order to suggest recommendations for continued sustainable design works.

This piece focuses on 'level one' of the repurposing design process called, re-style to repurpose (Eike, et.al. 2020). In this level, alterations in fit or style are made to the original garment to provide a renewed aesthetic. Adult-sized t-shirts were gathered for experimentation to design and develop 'no-sew' size-adaptable kids clothing.



The need to possess sewing skills or equipment in the design was excluded so as to increase repurposing adoption for consumers. Kids wear is targeted in this design challenge as children grow quickly, sometimes advancing through multiple sizes within a single year, which requires consumption of new goods while potentially putting financial stress on a family. This size-adaptable girl's design grows with the child through slit-lacing adjustments. 'ISU Blue' started as an adult size large and through slit-lacing adjustments, can be modified down to a kid's size 5/6 (small). 'Crisscross' lacing reduced the width of the shirt by approximately 4 inches (on both the right and left sides of the shirt) while 'snake' lacing reduced length from shoulder to bust/chest by about 4.5 inches on each the front and back of the shirt. Lacing (3/4" width) was cut from the sleeves of the original shirt.

**Rachel Eike, Iowa State University, USA**



## Upcycled Patchwork and Quilted Tummy Time Mat for Children

The objective was to design and produce a tummy time mat that is an aesthetic, safe and practical home furnishing for use under supervision by babies (3-12 months). The use of the mat by the babies aims to strengthen their neck and shoulder muscles. The cotton produced item is made from remnant fabrics which are upcycled to incorporate sustainable principles. The overall health of the child was central to this project as they are the intended user and it is because of usage of the product that their muscles will grow and strengthen as well as social interactions with the supervising adult. Description Process – In adhering to the design process, I began by gathering ideas of colour, fabric choices and embellishment I sketched and designed on paper what I would like my product to look, including the dimensions and how it would be assembled. I drafted 2 distinct patterns for crazy patchwork of approx. 8x8 and began to make the squares. These were then backed, a 2-ounce wadding inserted and the item top stitched. For a finish I included a raised border and then stitch in the ditch quilted the item. The techniques employed including drafting and assembling a pattern, patchwork, quilting and hand sewing. The materials I used were 100% Cotton Fabric (Navy, Yellow and Winnie the Pooh pattern), 100% Polyester thread, 2- ounce wadding.

**Graham Geraghty, St. Angela's College, Sligo, Ireland**

# Sustainable yet Stylish!



**Objective:** The objective in making this piece of clothing is to create a sustainable yet stylish fashion garment for the Spring Summer season.

**Description:** The garment is inspired by the 'Natural Glamour' trend, (Holbrook Studio, 2018, p.30) which calls for a simple but classy design 'connected with nature and hands-on craftsmanship'. The fashion piece is comprised of entirely upcycled fabrics and notions in keeping with the sustainable inspiration and the requirements of the Reimagined T-Shirt design brief (BA/PME 3 TFD Assignment Brief, 2018). The main fabrics employed were an upcycled white cotton bed sheet and white leftover lace and netting remnants. The fabric was hand-dyed using Dylon fabric dye in a 'Pebble Beige' shade (as the lace was a mix of two fabrics, only the cotton ribbed pieces took the dye, resulting in the background lace staying white.) The embellishments including the pearl beads and button are recycled from tops bought in charity shop. The lace and pearl beading and button add a glamorous and delicate feel to the top, contrasting with the plain ecru-dyed cotton on the bottom of the T-shirt. Technical processes included the addition of sleeves, a dip hem, a button opening, and a self-made bias binding constructed from the dyed cotton bedsheets material. This reimagined T-shirt 'soars towards sustainable development' as only pre-loved and second-hand clothing and fabric was used to make this new garment which is sustainable yet stylish.

(3 PDFs)

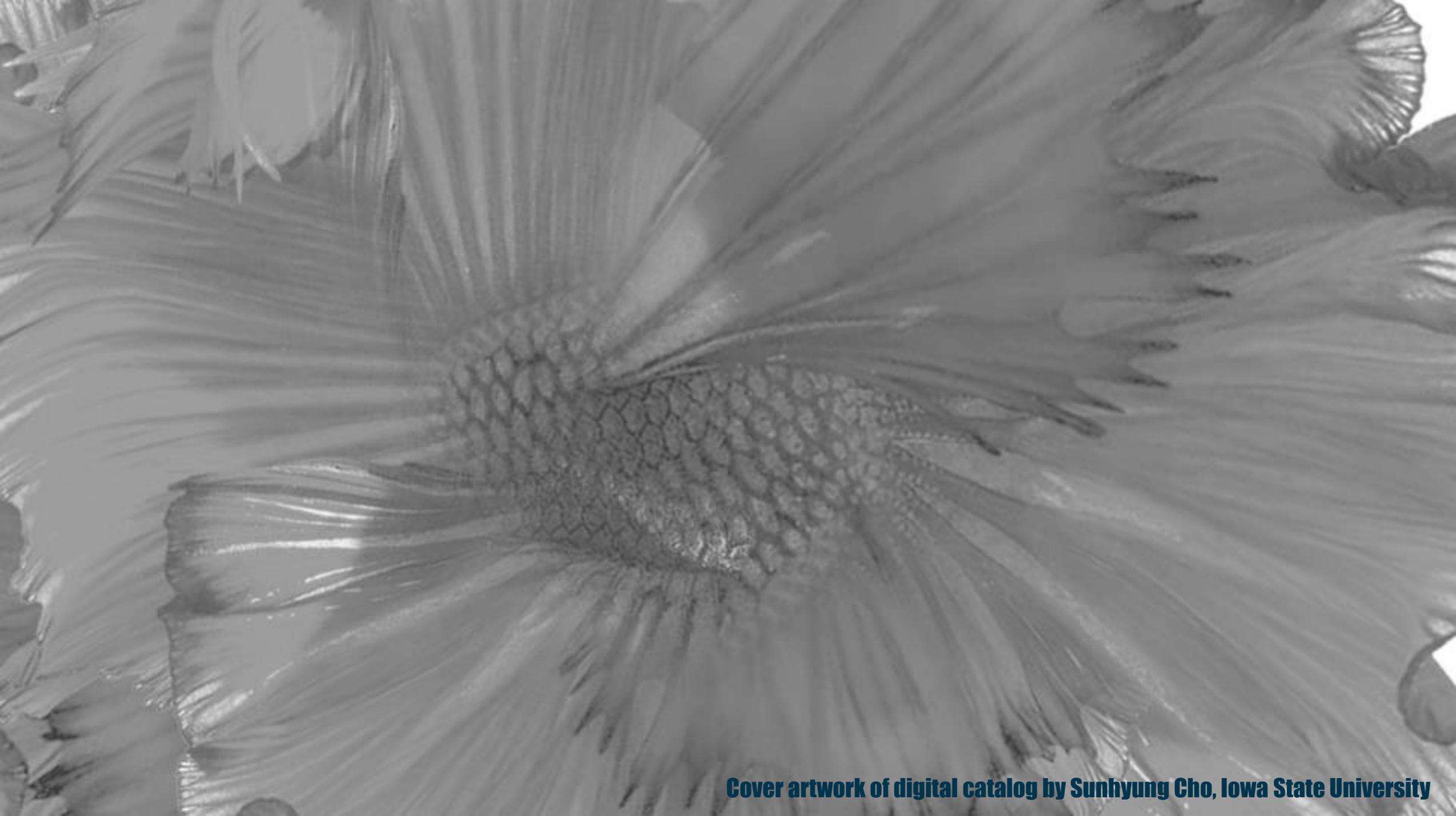
**Emma Melay, St. Angela's College, Sligo, Ireland**

# Green Gem



The inspiration for this garment came from the chosen gem fabric for the challenge and the idea to create something sustainable. I have entered this challenge for several years which has led to leftover fabric and fat quarter samples received. For this garment, I wanted to create a design that emphasized the chosen fabric for the year but also included fabrics from past challenges. I created a pattern with a take on the trapeze dress. I then created the patchwork fabric. For the patchwork, I cut fabric into 2 - 3 inch strips and then sewed them together. After the strips were sewn together, the strips were then cut again to create squares. These were again sewn together and then pattern pieces cut from the patchwork fabric. Fabric patchwork pieces were then quilted. The front of the garment was embroidered to complete the pieces and add further interest. The thread used for the embroidery was from previous challenge projects or inherited to keep with the theme of the project.

**Melinda Adams, University of the Incarnate Word, USA**



**Cover artwork of digital catalog by Sunhyung Cho, Iowa State University**