



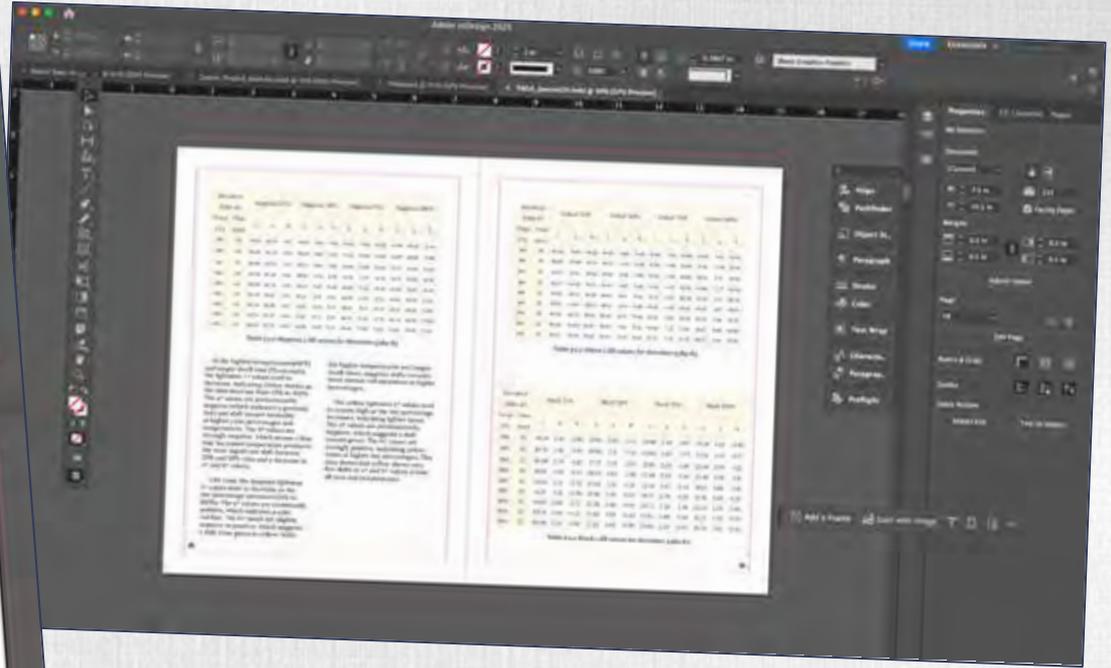
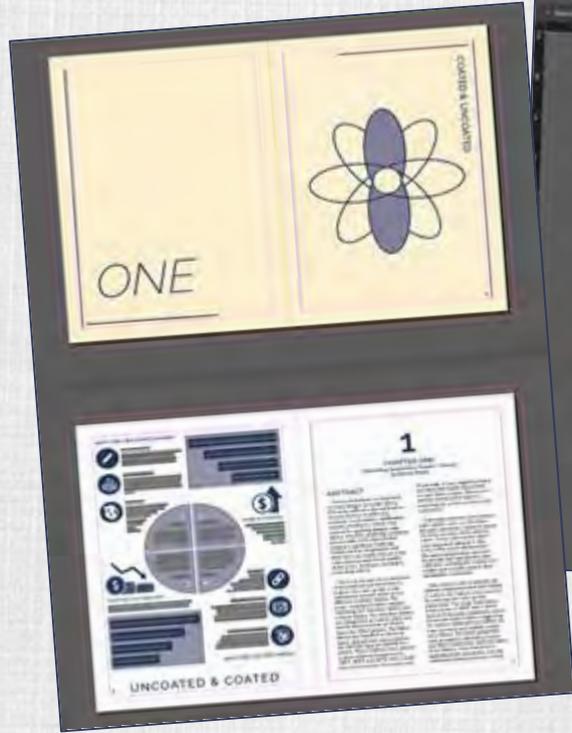
TEXTURES

Elevating the Art of Print

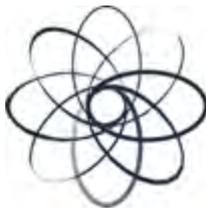
Clemson University TAGA
2024-2025

Our Inspiration





JOURNAL DESIGN



Cover:

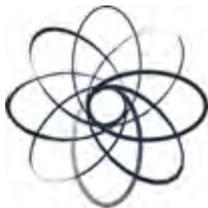
Features our logo, a spirograph with variations of textured lines. It is not only visually captivating, but reflects modernism in design.

Our title and TAGA chapter are included in our primary font family, *Raleway*.

Main Challenge:

Ensuring the variety of textured lines that make up the spirograph would be able to be printed successfully on linen substrate.





Pages:

Chapter content was laid out into two columns, with the heading and title centered at the top of the page.

We included an infographic that details about each finishing process and how they elevate and provide a tactile element to printed pieces.

Main Challenge:

Ensuring the theme and style of our journal was consistent throughout, including layout, colors, and fonts.

The infographic is divided into two main sections: 'WHY USE UNCOATED PAPER?' and 'WHY USE COATED PAPER?'. The uncoated section includes icons for 'Whisper Softness', 'Speed & Efficiency', and 'Sustainability'. The coated section includes icons for 'Costly to Produce', 'Connectivity Area Implications', and 'Sustainable'. A central circular diagram is divided into four quadrants, each with a different icon and text. The chapter introduction is titled '1 CHAPTER ONE' and 'Optimizing Substitution Transfer Printing' by Ramya Prasad. It includes an abstract and a main body of text.

WHY USE UNCOATED PAPER?

- Whisper Softness**
- Speed & Efficiency**
- Sustainability**

WHY USE COATED PAPER?

- Costly to Produce**
- Connectivity Area Implications**
- Sustainable**

1 CHAPTER ONE
"Optimizing Substitution Transfer Printing"
By Ramya Prasad

ABSTRACT

Various magazines are prepared for various designs on coated fabrics. This study aimed to offer substitution transfer printing as a more sustainable printing process for artists and designers. However, achieving consistent and accurate color reproduction remains a significant challenge. Factors such as temperature and layer film can heavily influence the color accuracy and overall quality of the prints, making it essential to study their effects.

The study focuses on the influence of temperature and layer film to evaluate the color quality of the substitution transfer printing process. Different printing substrates, consisting of 3 different fabrics and 6 fabric finishes. The substrate fabrics are categorized as coated, white, and unbleached and printed at 120°C and 150°C. The fabric finishes are classified as fabric, heavy, and soft top and printed on the 100% cotton and 100% polyester fabrics. These 18 fabrics were prepared at three different temperatures: 100°C, 120°C and 150°C, with a dwell time of 10 seconds, 45 seconds, and

10 seconds. A color calibration printer and ink set target was printed on each fabric sample. Three color patches were used for base for evaluating the print's precision and consistency.

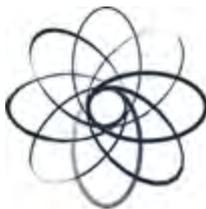
This study measures and evaluates color accuracy such as L*a*b* values, color gamut, and Delta E values to assess the color accuracy of the printed fabric. These color metrics values were measured using an X-Rite i1Pro 3 Plus spectrophotometer. The spectrophotometer allows for precise and reproducible data collection, ensuring the results were reliable and could be used for long-term meaningful conclusions.

This research aims to identify the optimal temperature and time setting to achieve the highest color accuracy by analyzing the color quality parameters. The study found that a temperature of 120°C with a dwell time of 10 seconds consistently shows the lowest Delta E values, suggesting the optimal substitution condition for color accuracy and stability in substitution transfer printing process. Additionally,





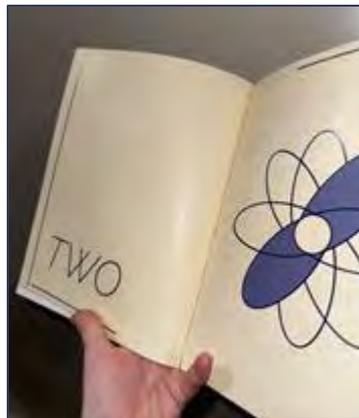
JOURNAL PRODUCTION



Pages:

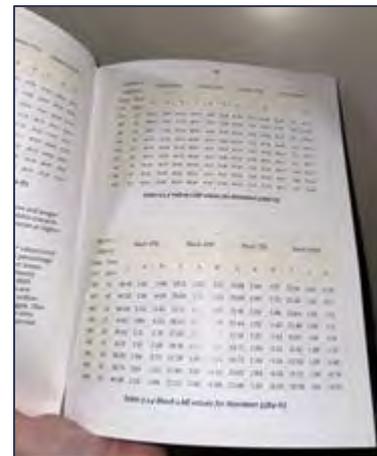
Our journal pages were printed using the Konica Minolta on 11x17 Cougar Opaque 80lb Text paper.

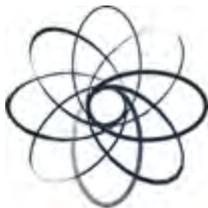
We imposed our pages using a 2-up duplex for a more efficient production run and to reduce paper waste.



Main Challenge:

We intended to print the pages using our HP Indigo. However, during our production period, it remained down for multiple weeks. The Konica Minolta allowed us to print the pages and stay on track during production.





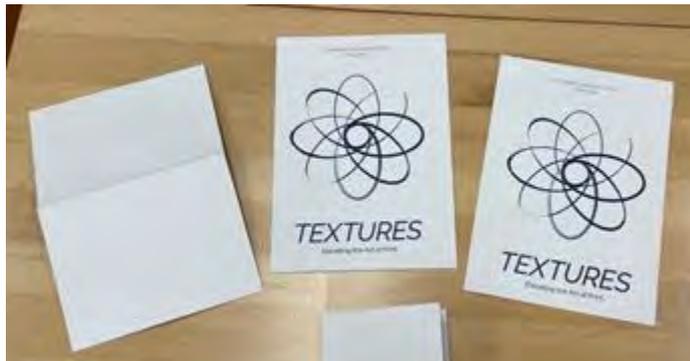
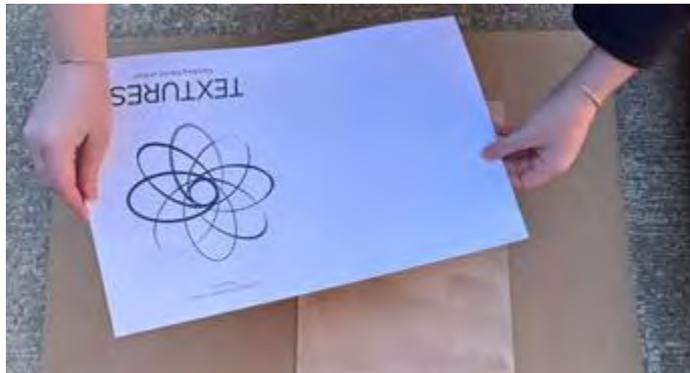
Covers:

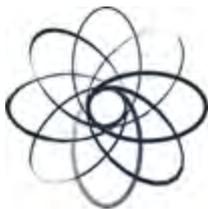
We printed the cover design on linen-textured paper using the HP Indigo 7900 Digital Press. Each cover was then glued to cardstock for improved thickness and durability.

The covers were creased using the Mimaki CFL-605RT Plotter for consistency before binding.

Main Challenge:

Ensuring consistency across covers during the gluing process and preventing defects, including air bubbles and non-glued areas.





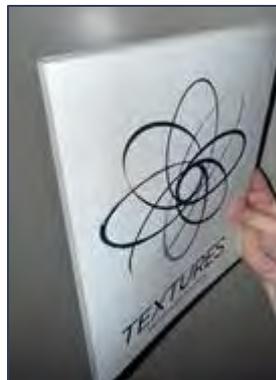
Binding:

The pages and covers were perfect bound using the Fastbind Elite XT binding machine. Once dry, the 70 books were trimmed down to size using the Polar 78 Guillotine cutter.

In addition to creasing the covers, we used a handmade creasing block to prepare for the binding process.

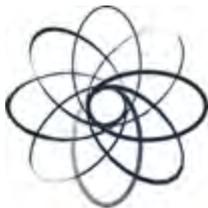
Main Challenge:

Preventing cracking in the spine during binding and ensuring proper adhesion.





T-SHIRT



Design and Production:

We created a cohesive and visually appealing design that incorporated texture throughout. The shirt features both a front and back design and highlights the location of this year's Conference.

The print process used was Direct-to-Garment, which involved pre-treatment, printing a digital image directly onto it using water-based inks, and curing the ink to create a durable, lasting print.

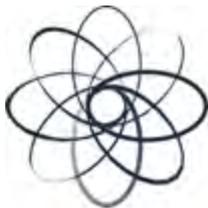
Main Challenge:

Determining the plate height for the DTG printer to ensure the highest quality print results.





WEBSITE



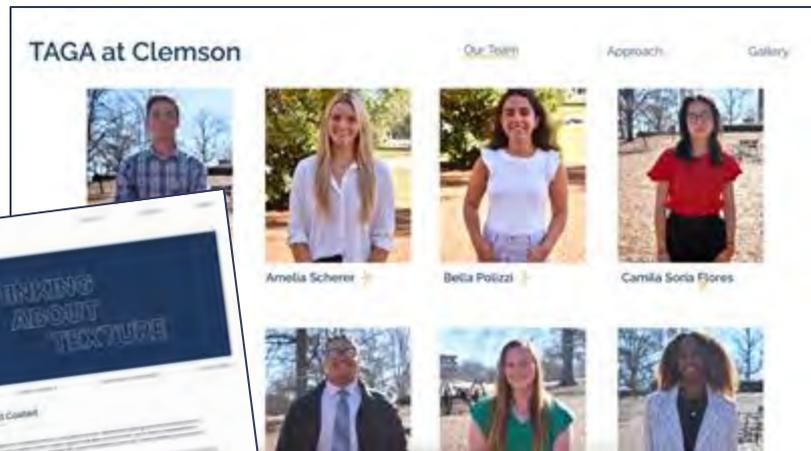
Design and Production:

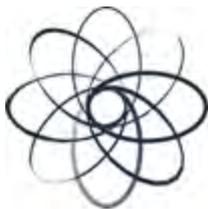
Two versions of our website, a desktop and a mobile version, were created in order to attract a variety of audiences.

We took careful consideration in making sure that it was easy to navigate and visually appealing for those who may have trouble reading digitally.

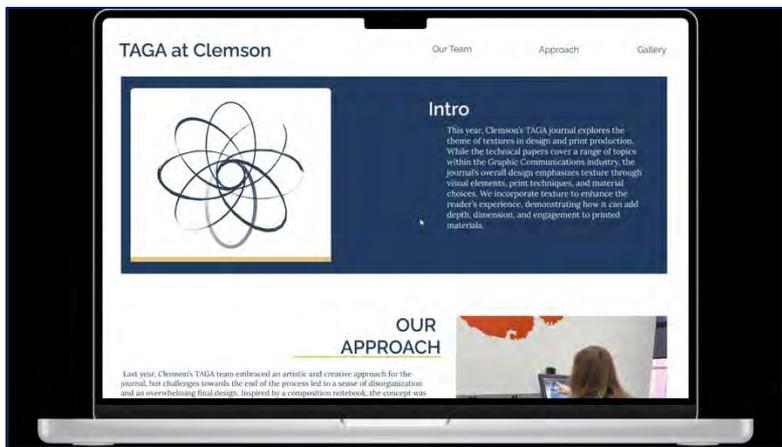
Main Challenge:

Creating a visually appealing navigation and making it to where the corresponding page would be reflected with a yellow bar in the navigation.





Desktop Prototype:



Mobile Prototype:



Link: <https://www.figma.com/proto/kSqWChd0LVY2XovhGJEDoS/TAGA-Website?node-id=154-15&t=4H7ec8Yt8SuupWKL-1>

