Brand Color Report - Capstone Project

Purpose:

Major brands like Starbucks, Coca-Cola, Chick-fil-A, and Procter & Gamble place a high priority on the appearance of their brand colors. Consistent color is widely viewed as a hallmark of product quality. To ensure color accuracy and consistency across various graphic outputs, teams of experts from design agencies, premedia companies, the brands themselves, and print production suppliers collaborate closely.

You will select a color from the provided list to serve as *your* brand color. Just like professionals on real-world brand and production teams, you will be responsible for creating color specifications and predicting how well your chosen color will reproduce across a variety of outputs.

To complete this capstone project, you will need to repurpose instructions and Excel templates from previous lab assignments, adapting them to fit your specific needs. Be sure to carefully review the instructions embedded in the template, and

Be sure to read all instructions carefully. Not all instructions will be as step-by-step as you're used to… you'll need to think about how to use instructions from past assignments to achieve your objectives.

Throughout the assignment, you'll be calculating the ∆E between 2 colors. Use this online tool to do so.

Delta E Calculator:
http://www.brucelindbloom.com/index.html?ColorDifferenceCalc.html

Brand Color Report

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Lab 001

Color Definition

	L	a	b	C	H
Pantone 2995 C	60.60	-28.34	-45.85	54.14	238.34

Link to Interactive chart:

https://colab.research.google.com/drive/1Ih6Dy3UBH5g03kc_H3Qvx9WIeaITP-Rb?usp=sharing

Cross-section:
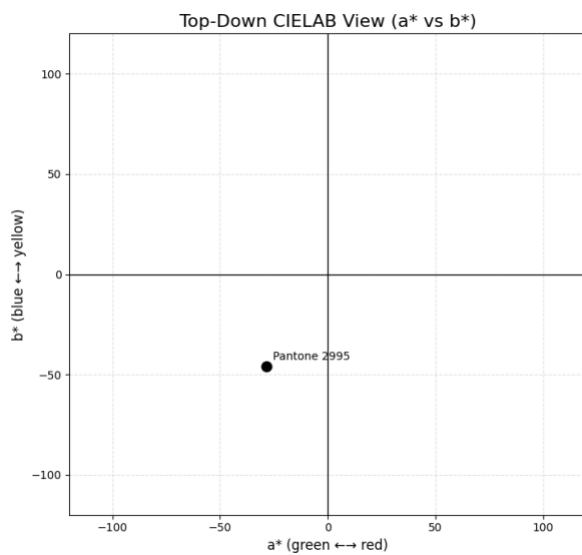
Spot Ink Formulation

Color on Substrate #1

Ink Component	Grams	Percentage	Pounds (to make 9lbs)	Cost (to make 9lbs)
Reflex Blue	1.38	4.59%	.4131 lbs	$2.42
Process blue SFR	6.01	20.05%	1.8045 lbs	$9.91
Extender	22.61	75.36%	6.7824 lbs	$17.97
Totals	30.0	100%	9 lb	$30.30

Ink Formulation Color Accuracy

	Substrate #1	Substrate #2
L	**60.55**	**56.6**
a	-27.40	-14.67
b	-42.29	-41.06
ΔE00	1.11	7.37
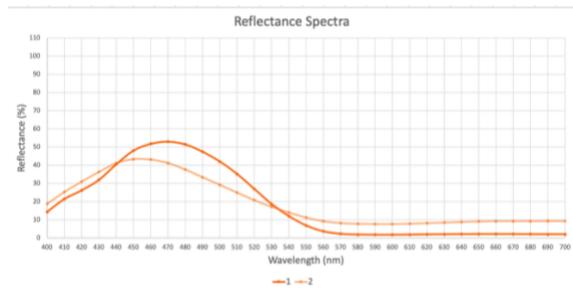
Ink Formulation Color - Varied Lighting

	D50/2º	D50/10º	D65/2º	F7/2º
L	**60.55**	**63.48**	**63.21**	**62.88**
a	-27.4	-32.72	-20.56	-16.12
b	-42.29	-37.93	-39.51	-39.53
ΔE00	**N/A**	4.02	3.80	5.67

Substrate Specifications

	Opacity	Whiteness	Caliper	Gloss	Brightness	Grain
Substrate #1	97.57	62.982	.0068"	49.5	81.6	Short grain
Substrate #2	104.106	104.832	.0043"	3.9	76.4	Long grain

Reflectance Spectra
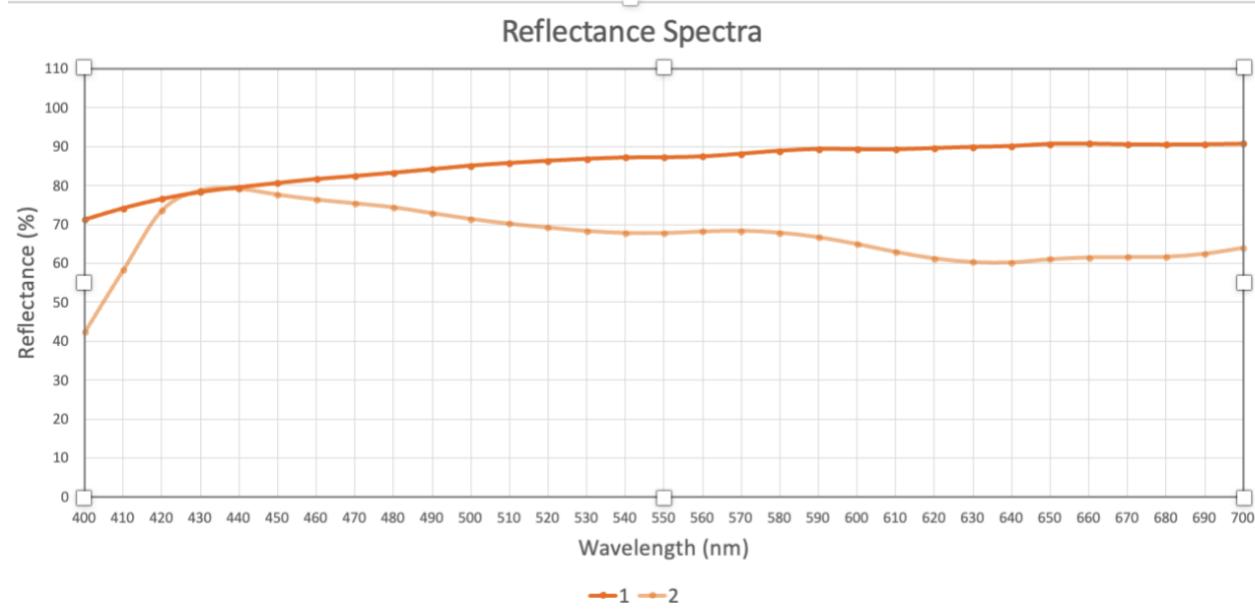
Process Color Reproduction

	Color Name Pantone 2995 C		
	GRACoL 2006	**OMET GCR100**	**US Newsprint (SNAP 2007)**
Cyan	84	84	84
Magenta	9	22	13
Yellow	0	1	0
Black	0	1	0
L	61	57	60
a	-28	-26	-29
b	-44	-40	-44
$\Delta E00$	.668372	3.739506	.907856
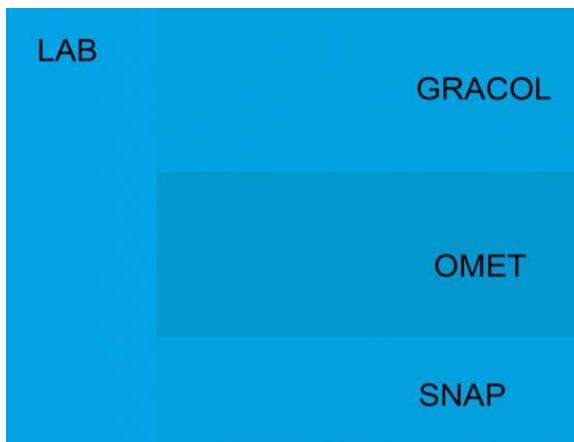
RGB Color Reproduction

	Color Name Pantone 2995	
	Adobe RGB	**sRGB**
R	63	0
G	162	164
B	225	229
L	61	63
a	-28	-19
b	-46	-43
ΔE00	.388587	4.646462

Proof Accuracy

	Color Name 2995 C
L	63.32
a	-15.02
b	-41.17
ΔE00	6.43

Color Accuracy Summary for Your Color

	ΔE00	Tolerance (3.0)
Ink - Substrate #1	1.11	pass
Ink - Substrate #2	7.37	fail
Proof	6.43	fail
GRACoL 2006	.67	pass
OMET GCR100	3.74	fail
US Newsprint (SNAP 2007)	.91	pass
Adobe RGB	.39	pass
sRGB	4.65	fail

Final Discussion, Reflection, and Analysis

The reproduction of Pantone 2995 C varies across the different substrates and output profiles used in this project. On Substrate #1, the custom spot ink formulation achieved excellent accuracy (ΔE00= 1.11), staying well within the 3.0 tolerance. However, Substrate #2 performed poorly (ΔE00 = 7.37), indicating the properties of this paper limit the saturation and hue accuracy achievable with the same ink formula. This shows how substrate characteristics directly influence color appearance.

Across CMYK simulations, the results were mixed. The GRACoL 2006 and US Newsprint (SNAP 2007) profiles reproduced the color with high accuracy (ΔE00 < 1). In contrast, the OMET GCR100 output struggled (ΔE00 = 3.74). In RGB profiles, Adobe RGB performed very well (ΔE00 = 0.39), while sRGB showed a shift (ΔE00 = 4.65).

The proof accuracy (ΔE00 = 6.43) was notably poor compared to the CMYK simulations. Visually, it did look slightly different. This aligns with the ΔE00 calculations and suggests that the proofing device might have a gamut limitation. When comparing the physical drawdowns, onscreen simulations, and the proof, the visual differences consistently follow the measured ΔE values: the closer the ΔE00, the more faithful the reproduction appears. Several factors contributed to the variation observed across outputs such as substrate properties and Gamut limitations.

From the designer's perspective, this exercise demonstrates the importance of choosing colors with awareness of output limitations. Designers often expect a Pantone color to look

identical everywhere, but this project shows that the blue can fail on certain substrates or in narrow-gamut color spaces. A designer must decide whether consistency or vibrancy is the priority and be willing to adjust brand specifications accordingly.

From a printer's perspective, the exercise reinforces the value of proper profiling, proofing, ink formulation, and substrate testing. Printers must understand where shifts will occur and communicate them to clients ahead of time. They must also recognize when a color falls outside a process's reproducible gamut and offer alternatives; whether substrate changes or formulating a new ink for every different substrate used. The biggest challenge in this assignment was translating previous lab workflows into a more open ended project format.