LABEL ACADEMY
MASTER CLASS

INKS

COATINGS &

VARNISHES

Digital colour control and ink management

24 - 27 September · Brussels
LABELEXPO
EUROPE 2019
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Mikaela Harding
Product Manager, Pulse Roll Label Products
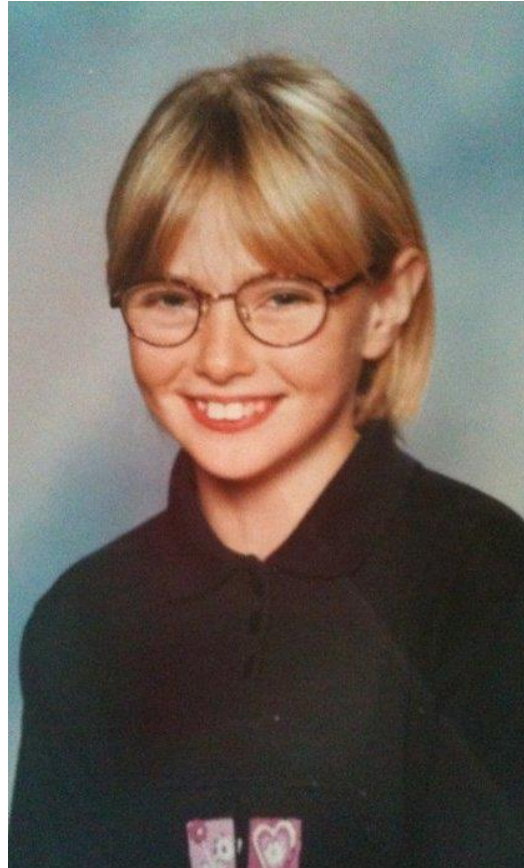
Digital colour control and ink management

➤ The importance of achieving accurate colour

➤ Colour theory and achieving brand colour consistency

➤ Value adding digital colour control

What is colour?

➤Hue

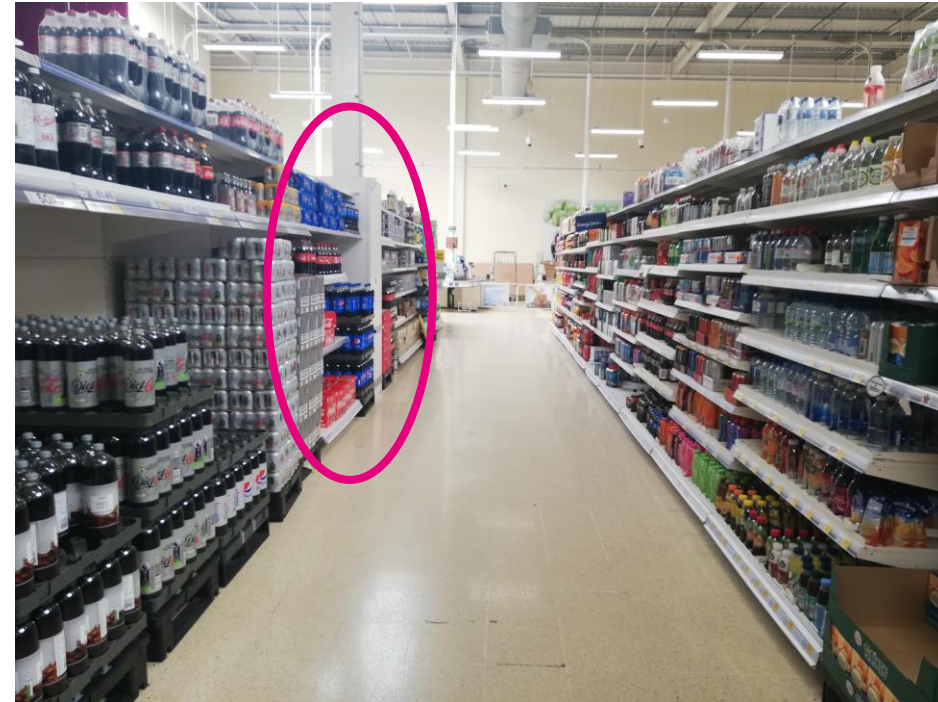When asked to identify the colour of an object, you'll most likely speak first of its hue

➤Chroma

Chroma describes the vividness or dullness of a colour

➤Lightness/Value

The luminous intensity of a colour — i.e., its degree of lightness — is called its value

Why does colour matter so much to brand owners?

Why does colour matter so much to brand owners?

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A spokesperson for Mondelēz, Cadbury's parent company, said: **'Our iconic colour purple has been used for Cadbury chocolate products for more than a century and is synonymous with the brand. We will continue to protect what we believe is a distinctive trade mark.'**

Why does colour matter so much to brand owners?

Why does colour matter so much to brand owners?

Colour communication – where can it all go wrong?

➤ Physical standards

➤ Lighting

➤ Onsite approval

➤ Is it even achievable?

Colour communication – where can it all go wrong?

➢Colour is dependent upon the light reflected/absorbed from the object

➢Change in the light can change the perceived colour and may lead to metamerism

➢The ideal light for colour matching is unfiltered natural daylight

➢Artificial lights can be used
  - ➢TL84 common in shops
  - ➢D65 artificial daylight
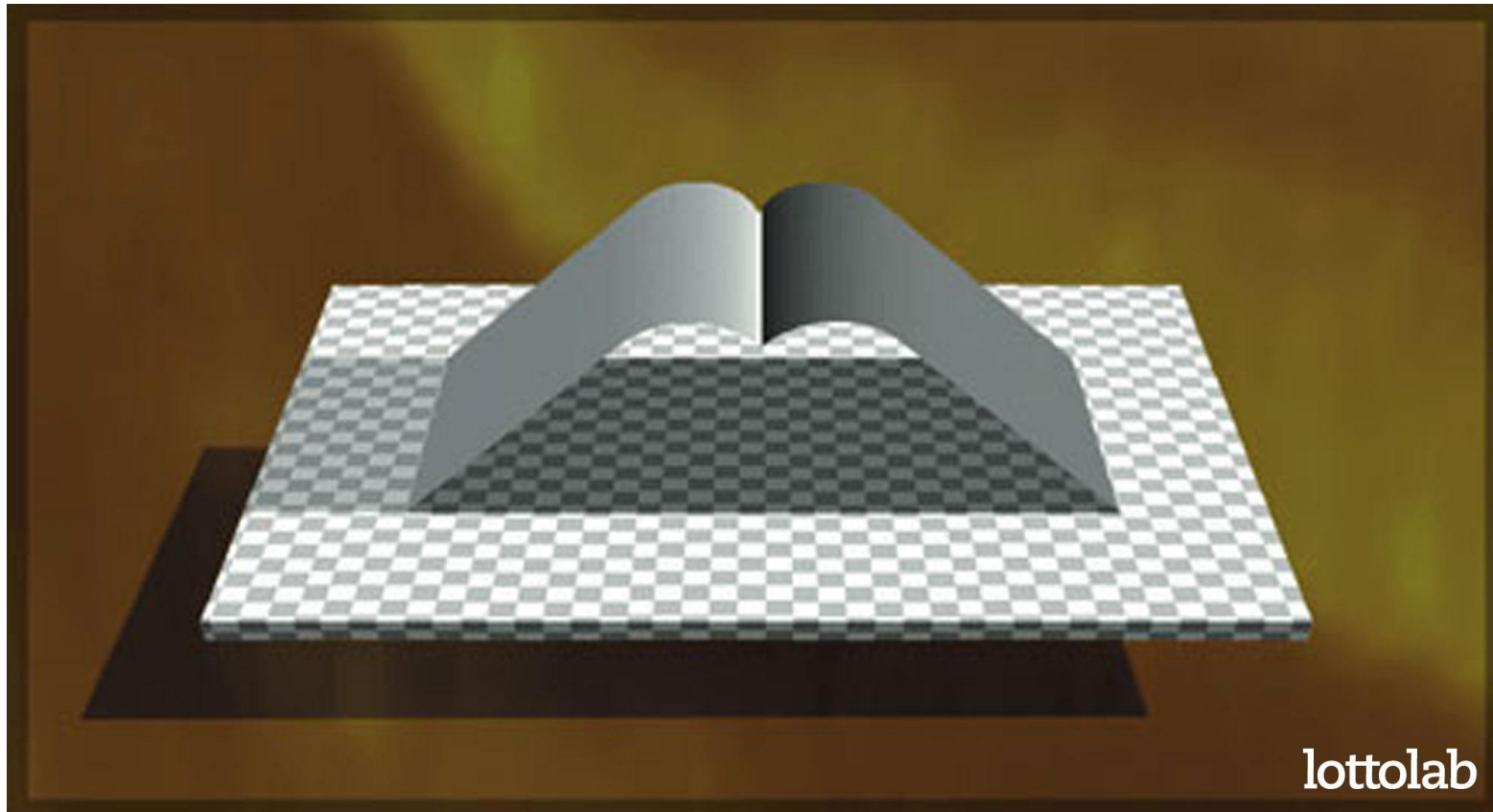 - ➢Cool white fluorescent lamps

"The Dress"
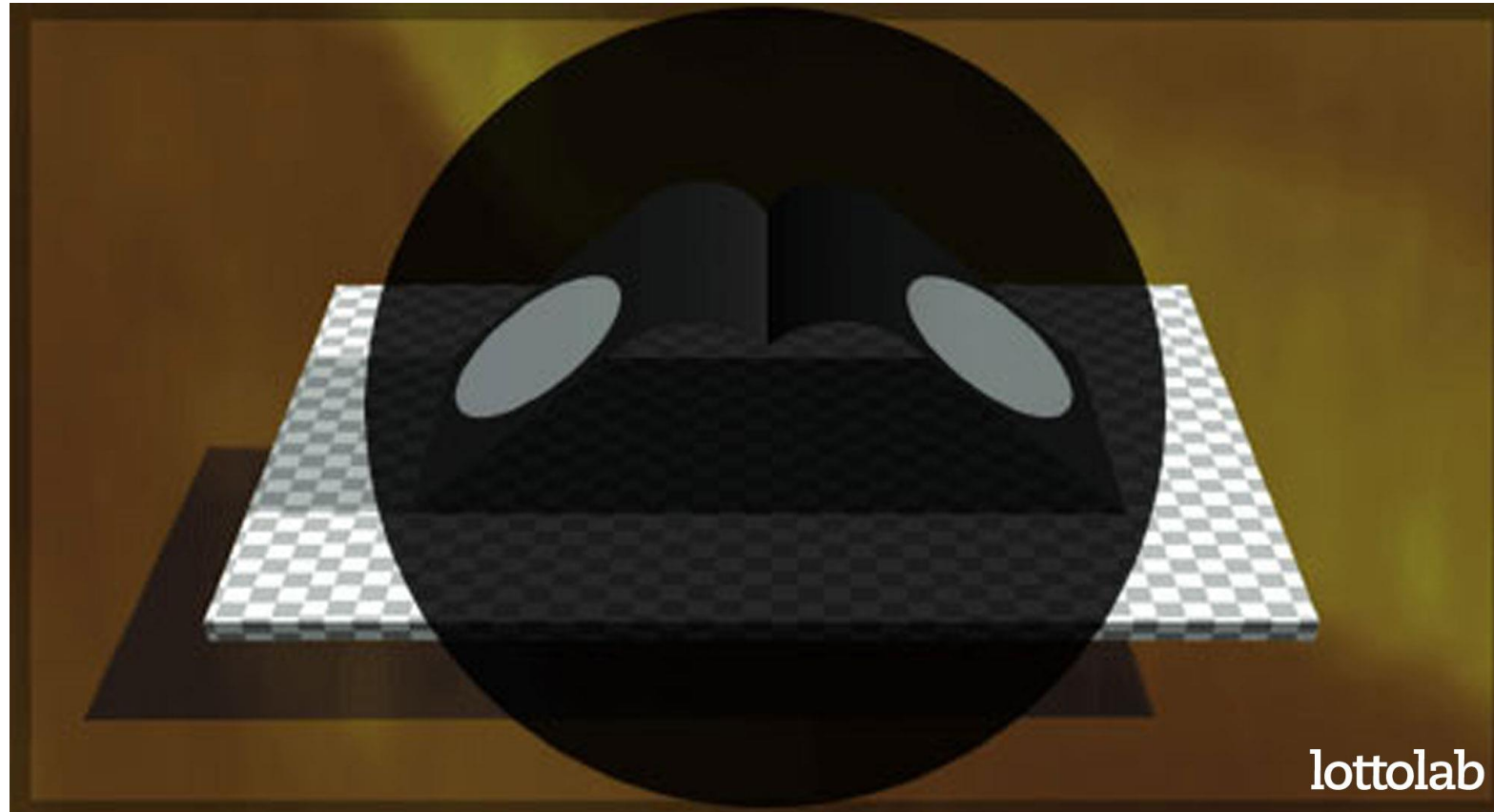

Image credited to: Paul Jinks and Cecilia Bleasdale

https://www.zenia.com/2015/11/19/black-and-blue-dress/

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Colour Memory

http://www.labofmisfits.com/articles/illusionsoflight.asp

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How to overcome these problems

DIGITAL
COLOUR
MANAGEMENT

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What is digital colour management?

➢ Spectro/Spectrophotometers are devices that allow numerical representation of a colour

➢ This is done as a set of coordinates in a "colour space" typically **CIE Lab** (most commonly used)

➢ Allow absolute measurements to be taken - exact transfer of information (.cxf file format)

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What is digital colour management?
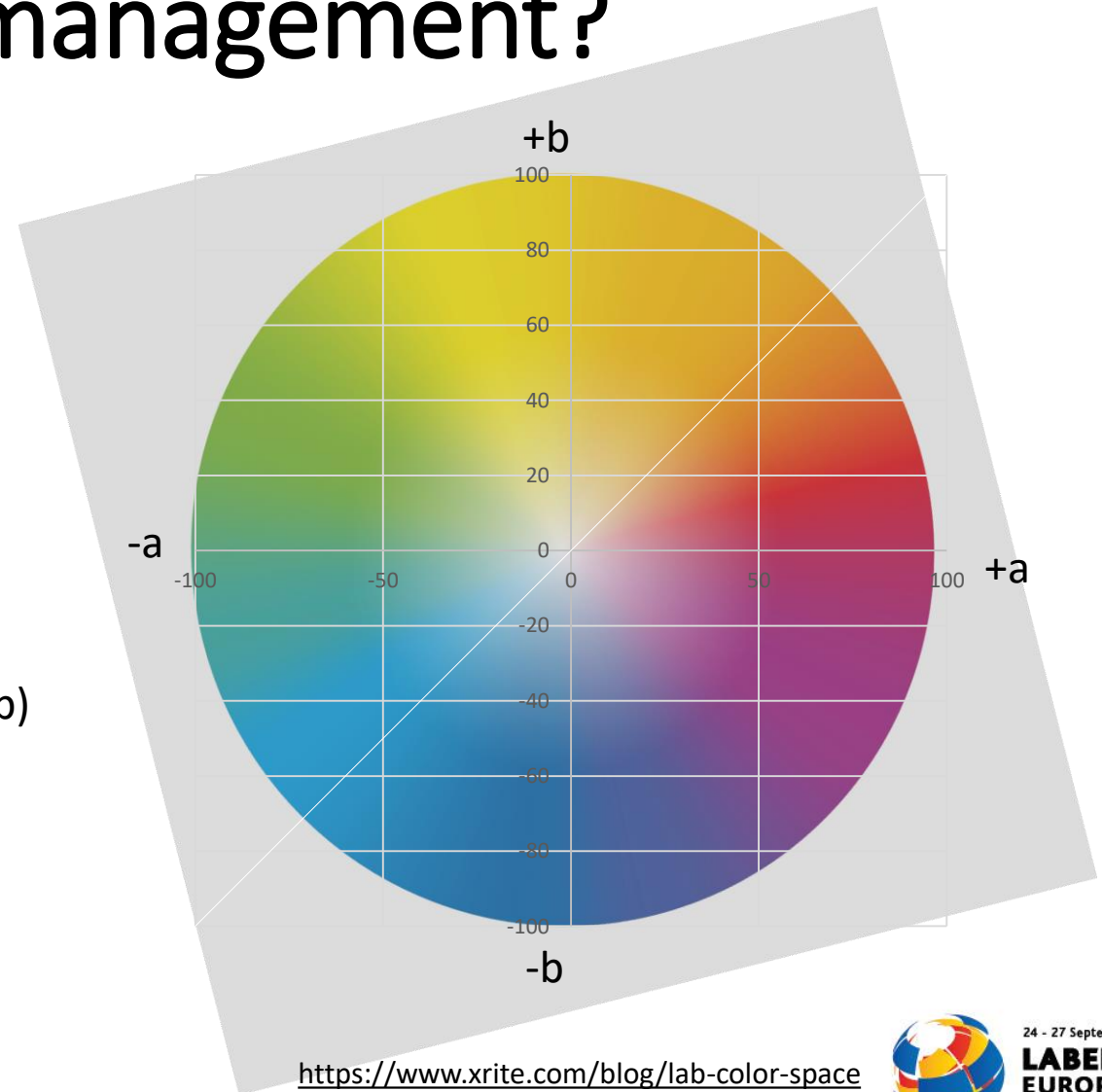
➤CIE LAB

L*

- the lightness of an object, the range is from 0 (black) to 100 (white)

a*

- the measure of redness (+a) or greenness (-a)

b*
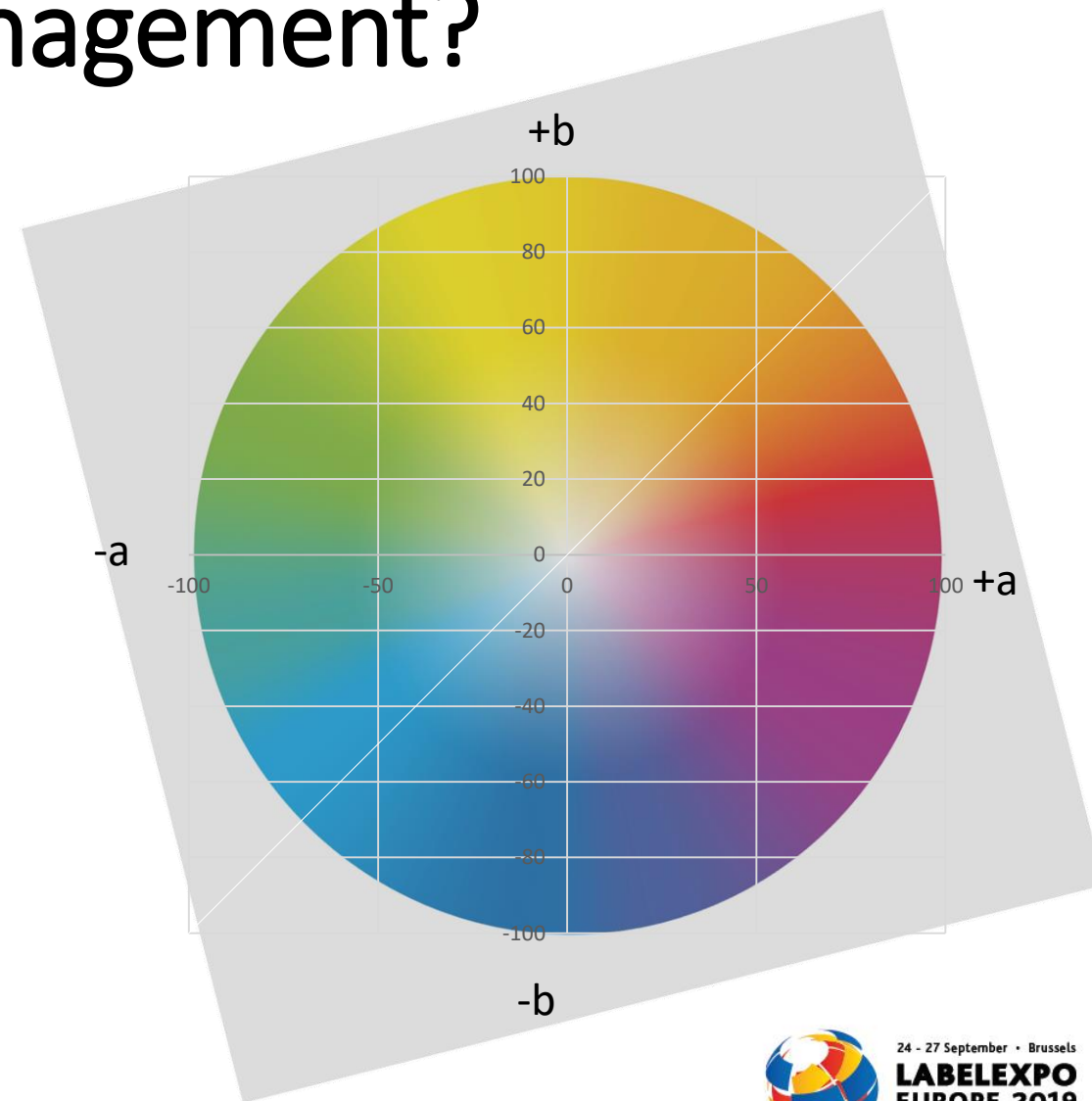
- the measure of yellowness (+b) or blueness (-b)

https://www.xrite.com/blog/lab-color-space

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What is digital colour management?

L* = 52.99
a* = 8.88
b* = 54.53

L* = 29
a* = 52.48
b* = 22.23

https://www.xrite.com/blog/lab-color-space

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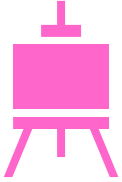**LABELEXPO EUROPE 2019**
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What is digital colour management?

➢ Delta E (94, 2000, CMC)

➢ Delta E represents the minimum visible colour difference detectable by the human eye

➢ Delta E is also written as DE, De, dE, DE, and De

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How to overcome these problem

➢ Phys̶t̶̶̶̶ards

➢ Lighting → Controlled

➢ Onst̶̶val

➢ Is it even achievable? → Pre-determined

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Value added digital colour management

➢ The key to reducing inefficiencies is digital colour specification, communication, and approval

➢ Even if a colour is specified in Paris, printed to the numbers in Budapest, and approved in New York, the digital version will **always be the same** when you use digital specifications across the workflow

➢ If you get the colour workflow correct, you can achieve the right brand colour, first time!

✓ Digital colour management is the WAY FORWARD!

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