Digital Printing

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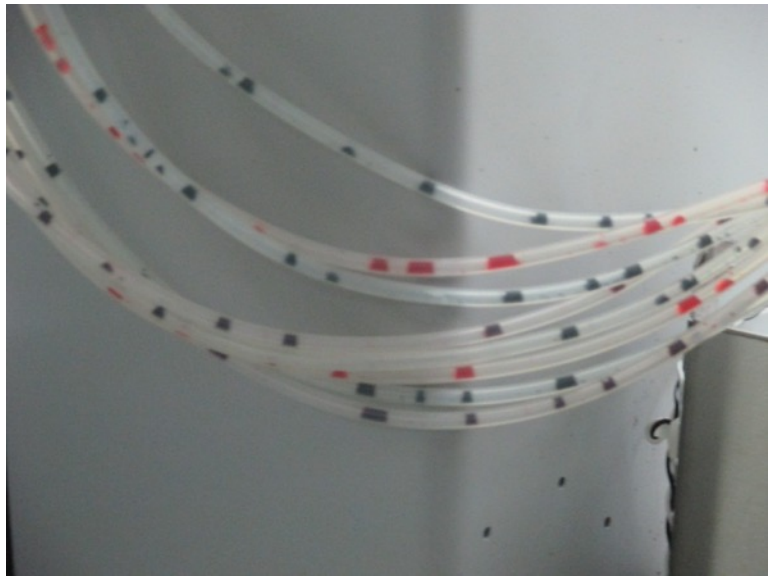
Technics

- Digital fabric printing is an ecological printing method because it only uses the amount of colour that is necessary for creating the pattern.

- Method does not use a printing template but instead, the colour is printed on the fabric via colour nozzles, much like in a paper printer

- The method enables the use of very different patterns and techniques in creating the desired expression



Sometimes in
I see a Caravaggio

It benefits a variety of schecthing possibilities

- The colours used in digital printing are often reactive colors which need after fixing for the fabric (steaming & washing).These colours feel like dyed fabrics .

- Also pigment colors are used. They need just heating for fixing the colours. These colors are printed on the top of the fabric and you can feel the print.

- Epson printer prints with pigment colours.

- Digital printing allows handicraft methods to be easily produced into bigger production

Materials

- Digital printing can be used on very different printing base materials .so the The possibility to use several fabrics provides further possibilities for the pattern design– the same pattern can be duplicated on both to thin silk and then polyester to make for example umbrellas.

- The illusion of another material is created for example when a photo of a knit is then printed on smooth silk.

- Different materials duplicates the print differently ,same idea like when printing on different thicknesses or qualities of paper

Colorchart and picture printed

1. on thin batist cotton

2. plain cotton

3. knitted cotton

Digital print on paper as a paper card and on a knitted textile as a tissue for eye classes.
Note the difference of dark tones

Anna Isoniemi Digital prints on sequins 2017

Artistic possibilities

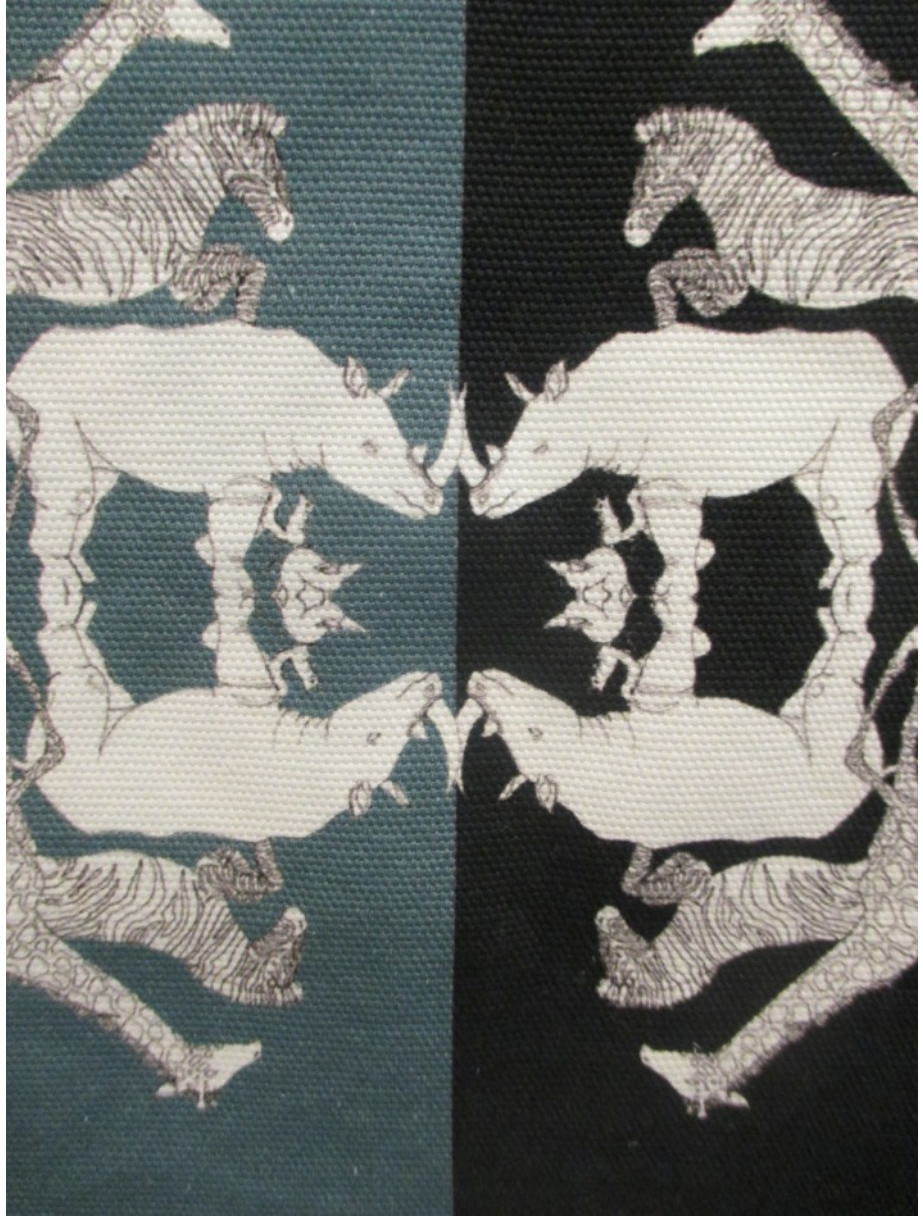
- Digital printing allows for nearly unlimited possibilities to express experimental patterns, paintings ,pictures and colors.

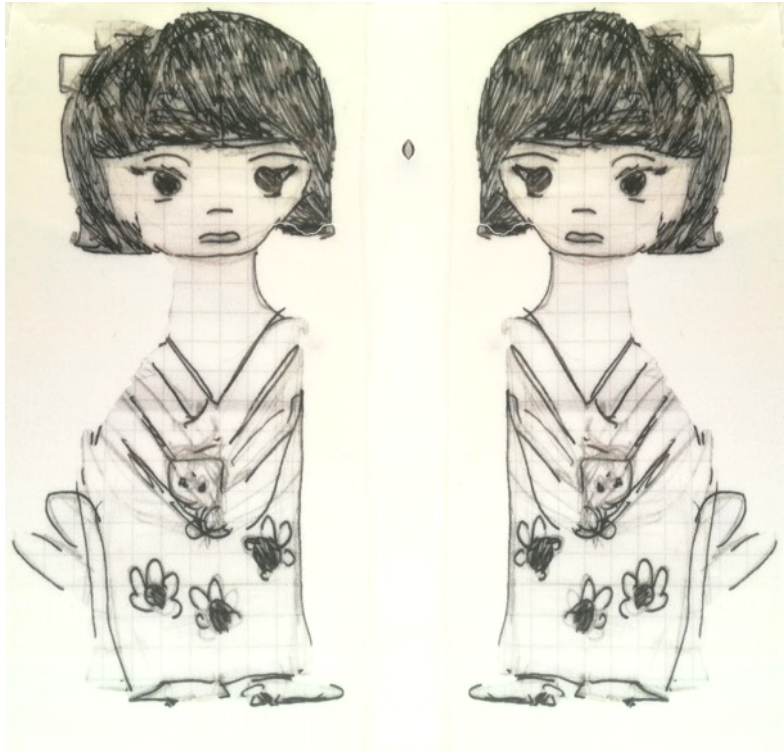
- The strokes of a pencil or a brush are very accurately drawn onto the fabric, and the effect of wet paper is transferred onto the fabric in a realistic way.

- Digital printing also enables the use of scaling to make large changes in scale, so that it is possible to play around with images and change their meanings during the design stage

Sketching technics and their possibilities

Painting with various technics and tools are possible also wet paper images





Drawings with thin lines can be easily printed

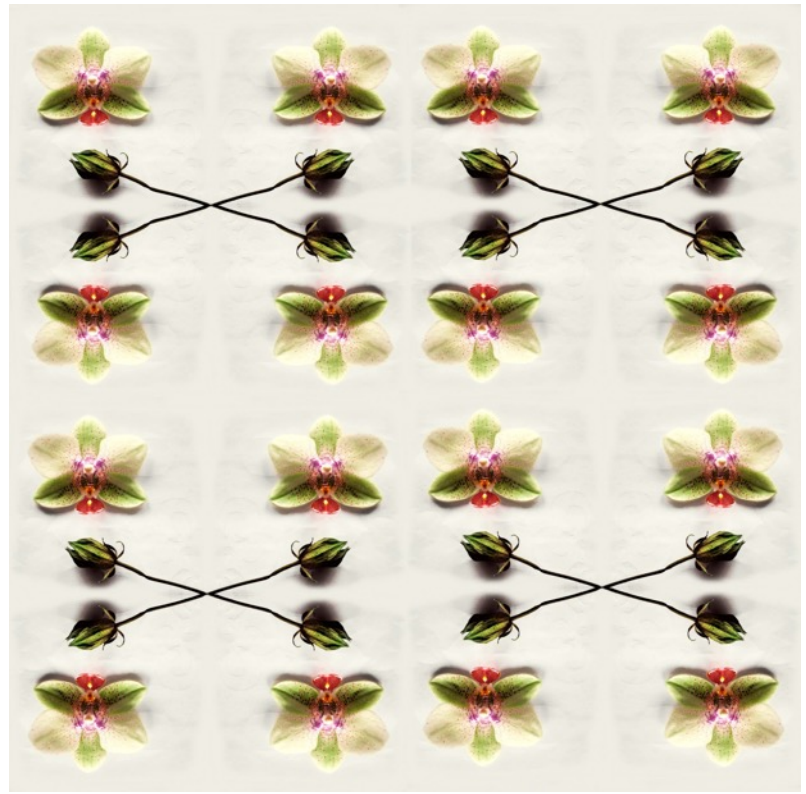
- Digital printing allows handicraft methods to be easily produced into bigger production

- Material illusions are easy to make, as you can print an illusion of another material (Like knitted surface) is then printed on smooth silk.

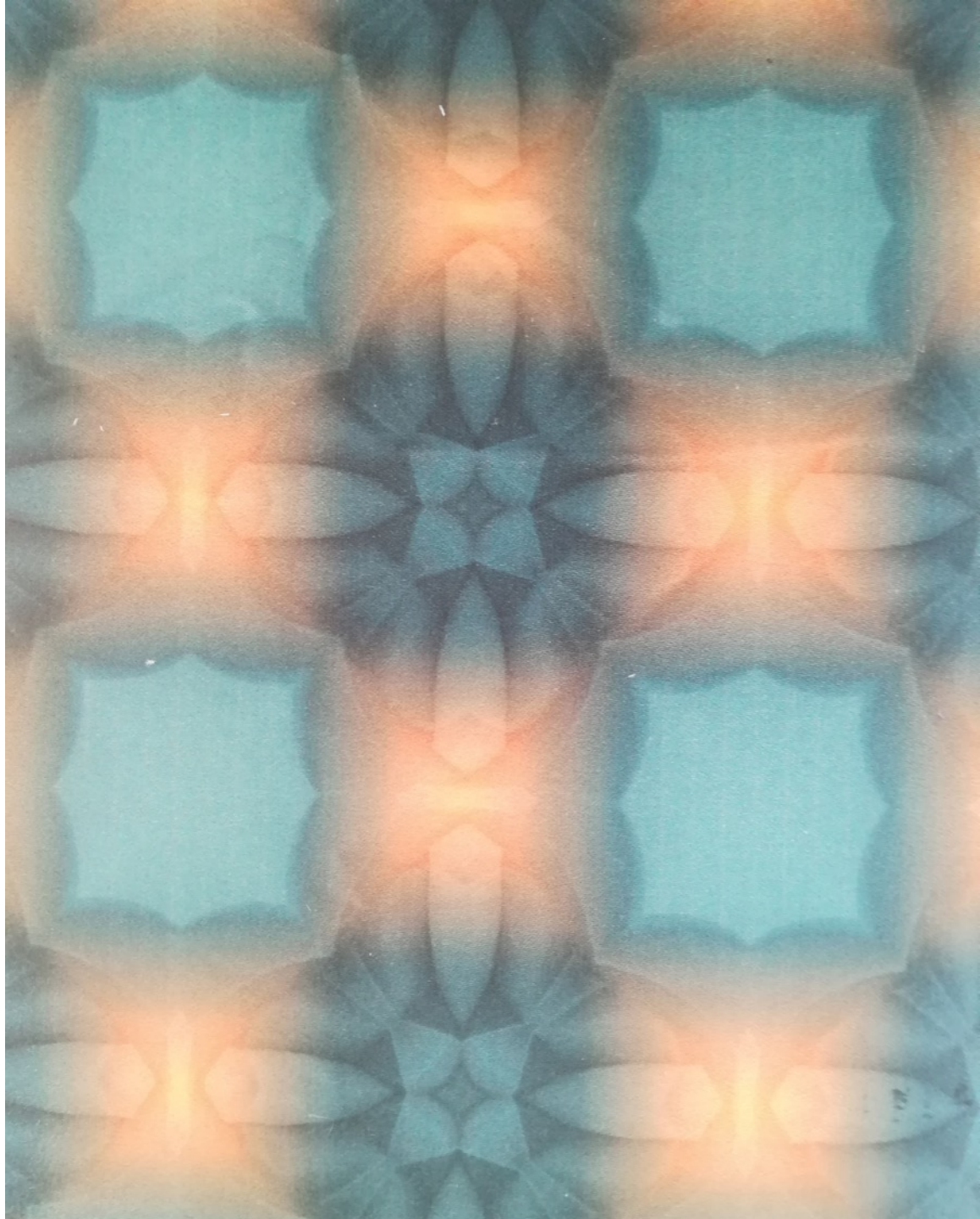
- Digital printing also enables the use of scaling to make large changes in scale, so that it is possible to play around with images and change their meanings during the design stage.

Illusions and photomanipulations

Post it booklet Eeva Heikkinen



Tomi Hyyppä 2019



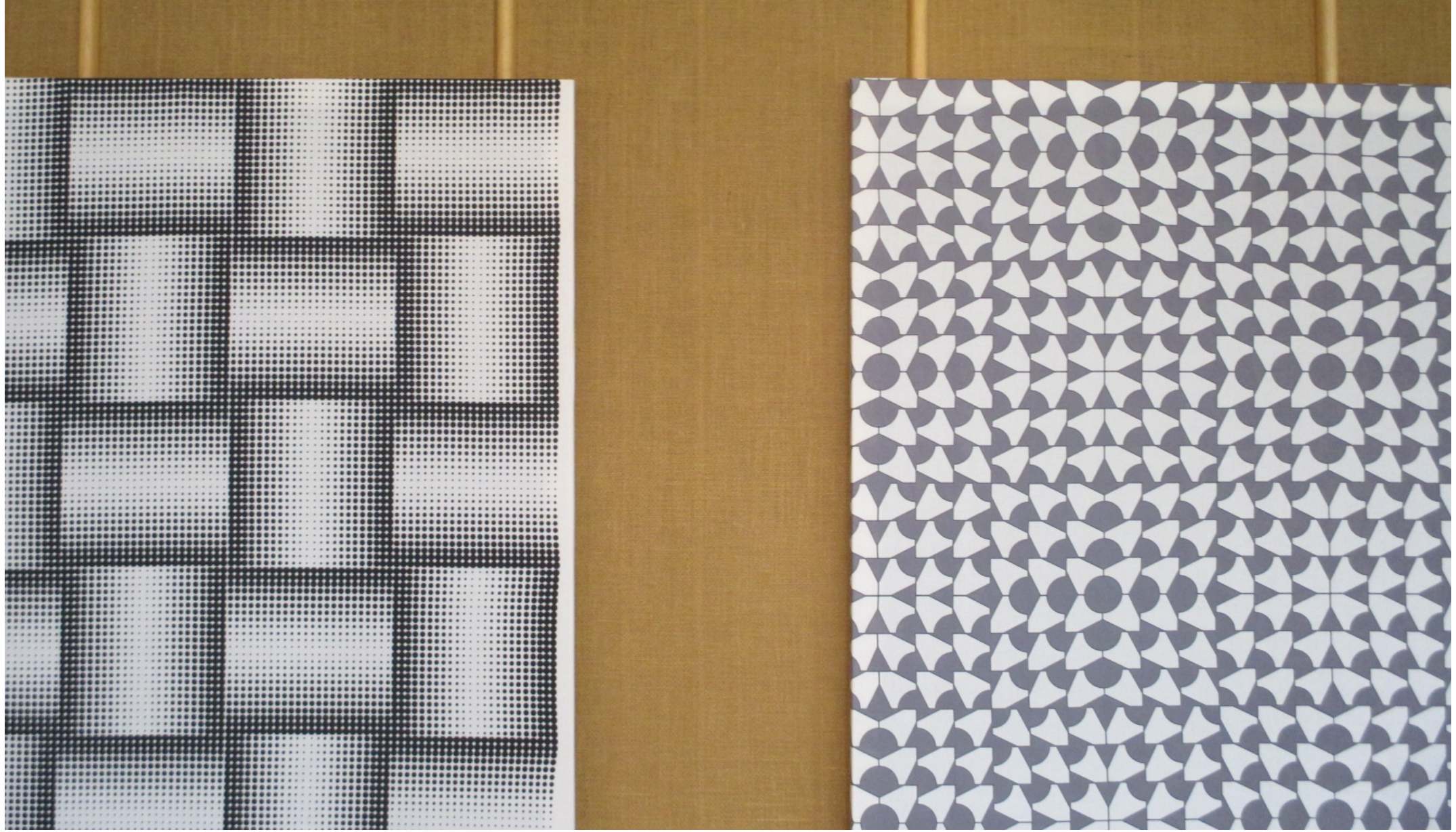
Elisa Rauma Bueyeberry 2018

- Colours also look different on different materials;

if black is printed on pure white fabric, it looks black, but if it is printed on off white fabric it turns greenish because of the yellow that the off white fabric consists. This must be noted when coloring the pattern.

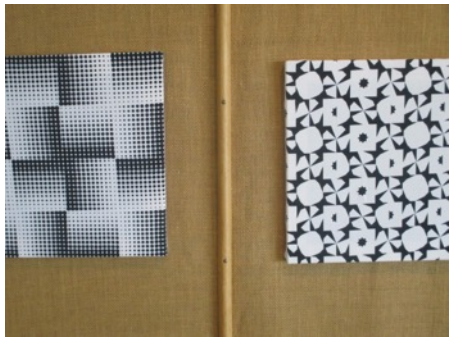
- From all colors black is the most demanding colors in digital printing, as it often turns out to have a hue or it easily blokcks the print pattern.

Scaling



Henri Judin 2017

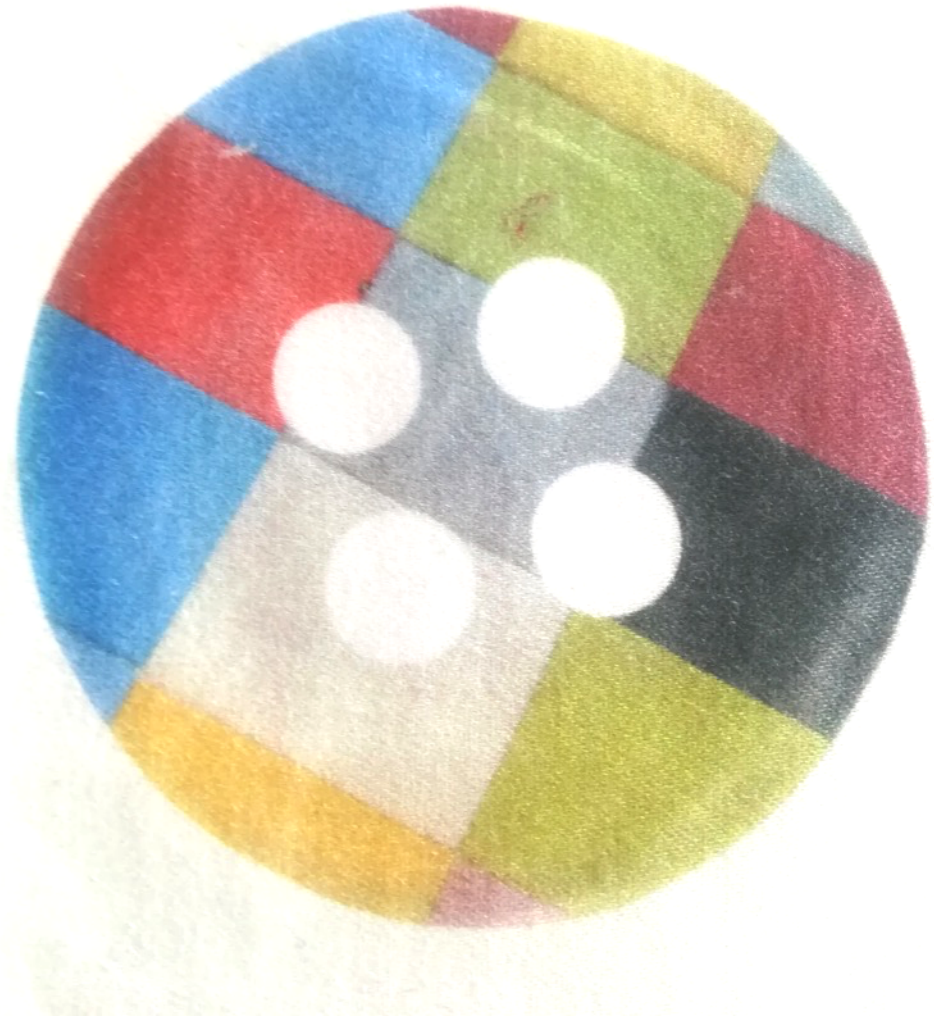
Lauri Tervonen 2017



Yi-Chia Tien 2019

Karoliina Mäenpää 2019

Material illusions with photos



Product placement printing

- You can make by computer the exatct pattern so , that the pattern plan does not make any waste material

Anna Isoniemi 2017

Digital Product placement print on sequins

Literature:

- Digital textile design; Melanie Bowles ,Ceri Isaac,Laurence King publishing
- The Patterned Mind, Creative Methods in Surface Design,Isoniemi ,Laura. Aalto ARTS books 2019
- Värit kohdalleen, valokuvan hallinnan perusopas: Lammela,Mika
- http://www.drycreekphoto.photo.com/Learn/color_management.htm
- Pellonpää-Forss, KUVIO PINTA STRUKTUURI, Taik BOOKS

- **Places to print**
- MUITA TULOSTUSPAIKKOJA
- www.printunlimited.nl (100 different fabrics)
- www.printscorpio.fi (Finish company, reactive and dispersionprints)
- www.arazzo.fi (prints on fabric and several other mat)
- www.serivari.fi
- www.catdigital.co.uk (raective prtinting)
- www.elobina.com (ruotsalainen yritys, ekologisia kankaita, reaktiivi- ja dispersiotulostus)
- www.spoonflower.com (American ,tapestry, fabrics, gift papers)
- www.advdigitaltextiles.com (Ameraican disperion and sublimation prints)

Design task

Design a t-shirt print benefiting some of the technical possibilities that digirprinting has to offer

Theme of the design is ILLUSION.

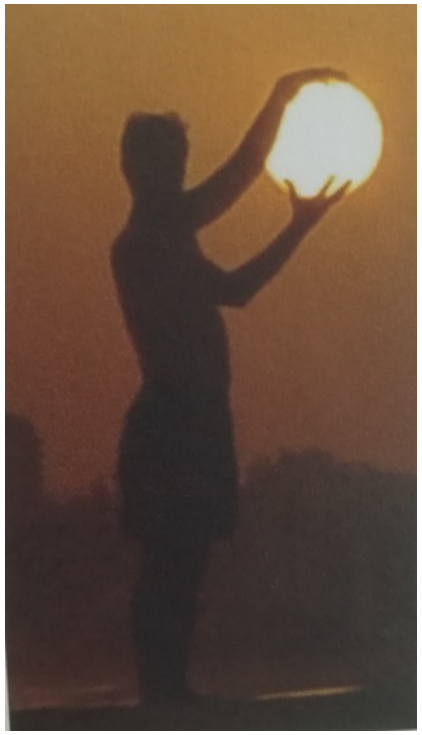
Technical demands

.we print on t-shirt and also to a piece to cotton sateen

- Printing plate size is S
- print area size 254x305mm
- Printing plate size 315x265mm
- Fabric size 350x400 mm
- **File formats:**
- Resolution 90-360 ppi (depending on prit mat and design 90-180ppi is usually sufficient)
- tiff, jpg (jpg recommendation)
- max 2 gb, 10 milj pixels
- RGB,CMYK, GREYSCALE, BINARY MONOCHROME
- sRGB (recommendation)

You can choose 1 from different angles
from following suggestions of illusions

a) Illusion through perspective



b) illusion through material

Broken plastic glass on printer screen

Dry oldwood

c) Illusion through technic

Man Ray : Rayograph 1923

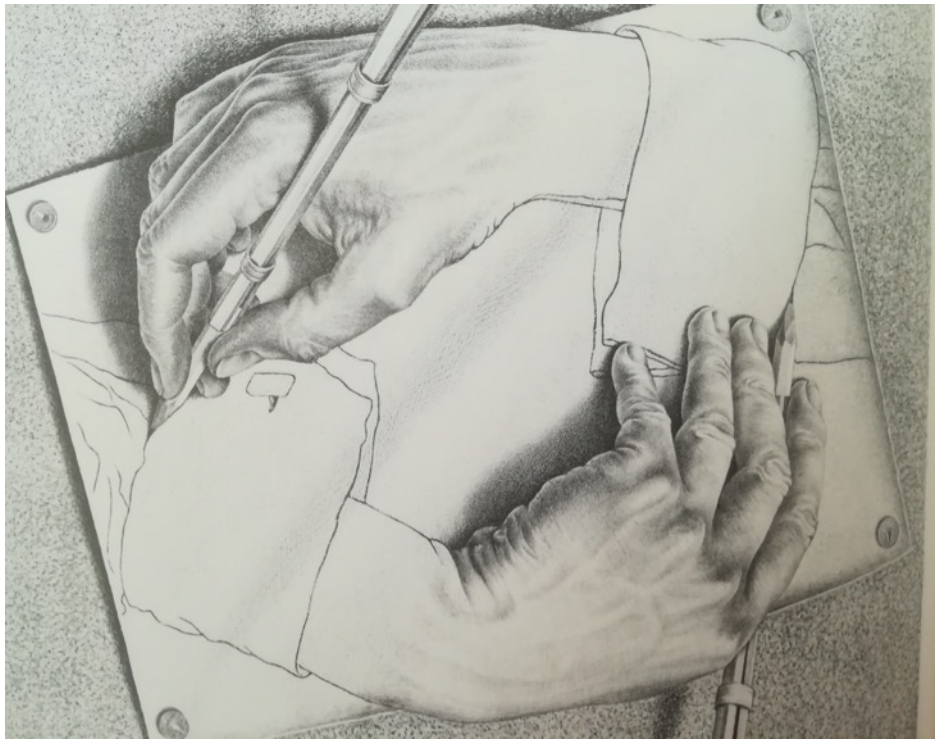
Item pictured through ice /window

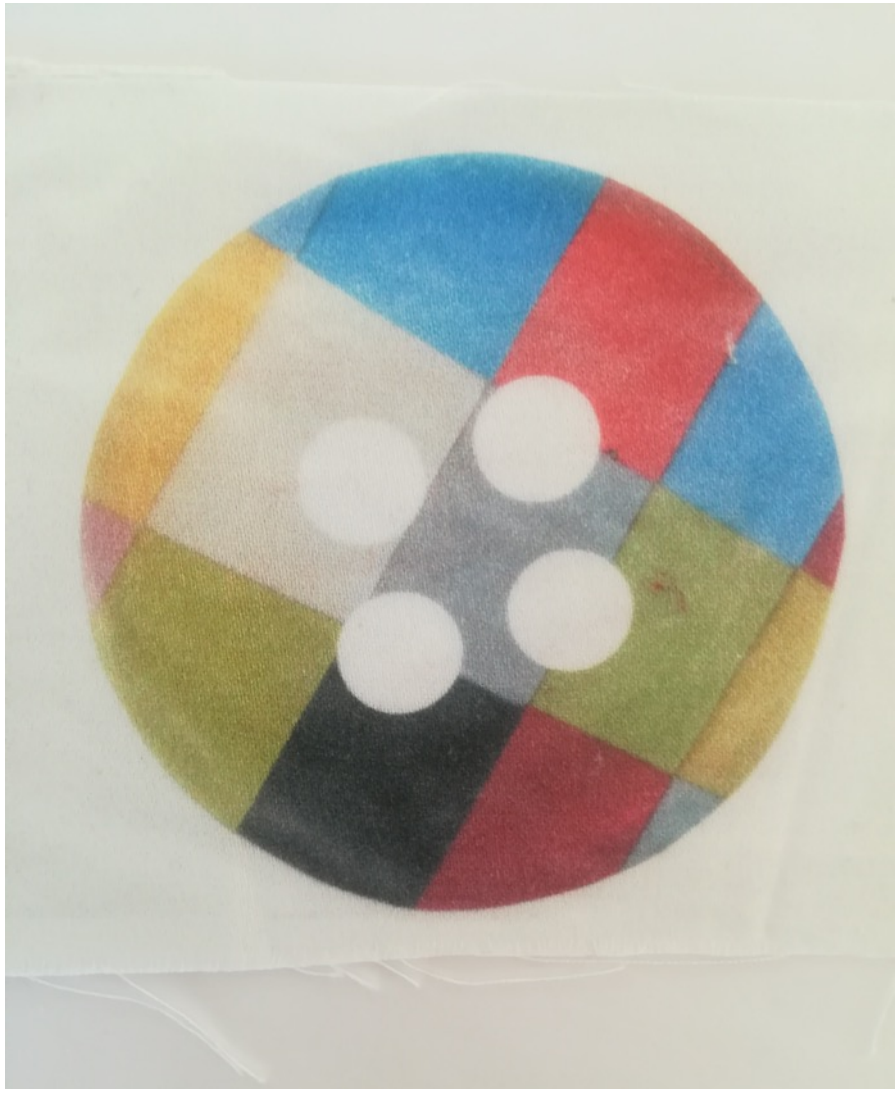
Picture of anshadow

d) Illusion by the subject

M.C Escher: Puddle

Drawing hands



e) Illusion through scale

Remember, the print does not have to be square like, you can also use a form