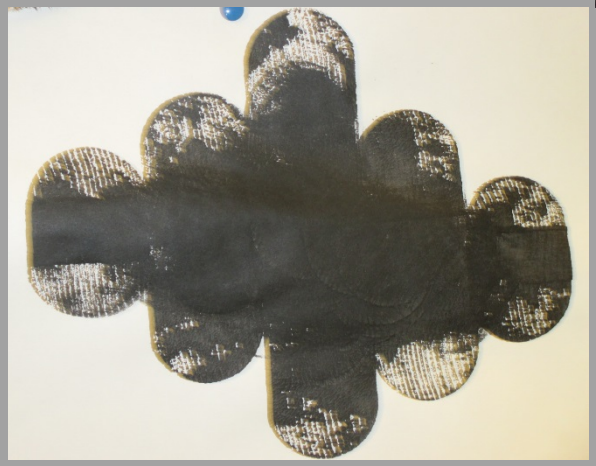
Rhythm
Repetition
Surface



Shapes In Action
Aalto University
Laura
Isoniemi
12.9 2018

Repetition and symmetry in nature

- Trees and branches
- Animals
- Plants

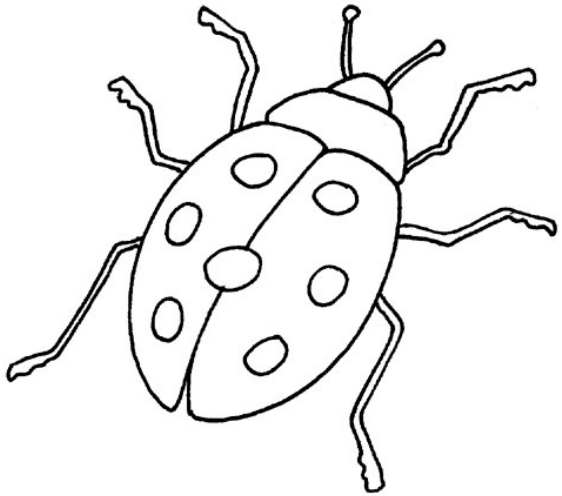
Kauniita sulkia ja höyheniä. 1 Sulka närhen *(Garrulus glandarius)* siivestä; 2 metsäpyyn *(Tetrastes bonasia)*, 3 turkinpyyn *(Perdix perdix)* ja 4 koirastavin *(Anas crecca)* höyhen; hieman suurennettuja.

59

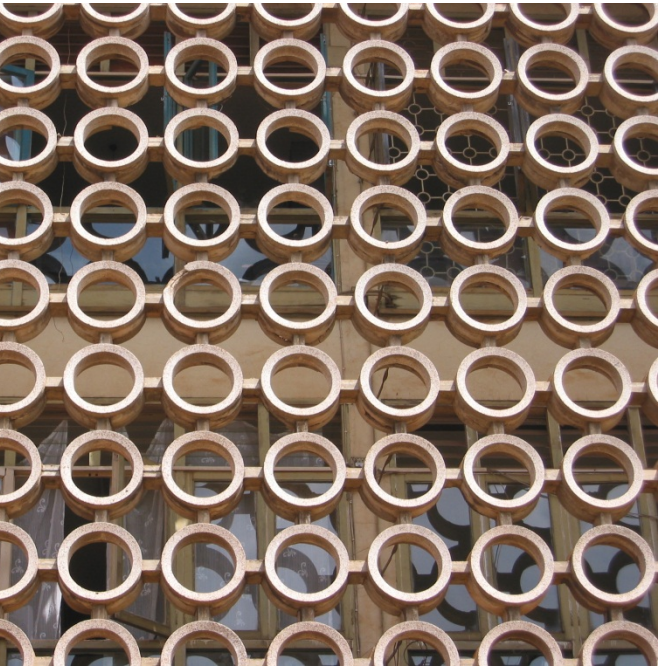
- Symmetry in plants

- Symmetry in trees and branches

- Symmetry in animals

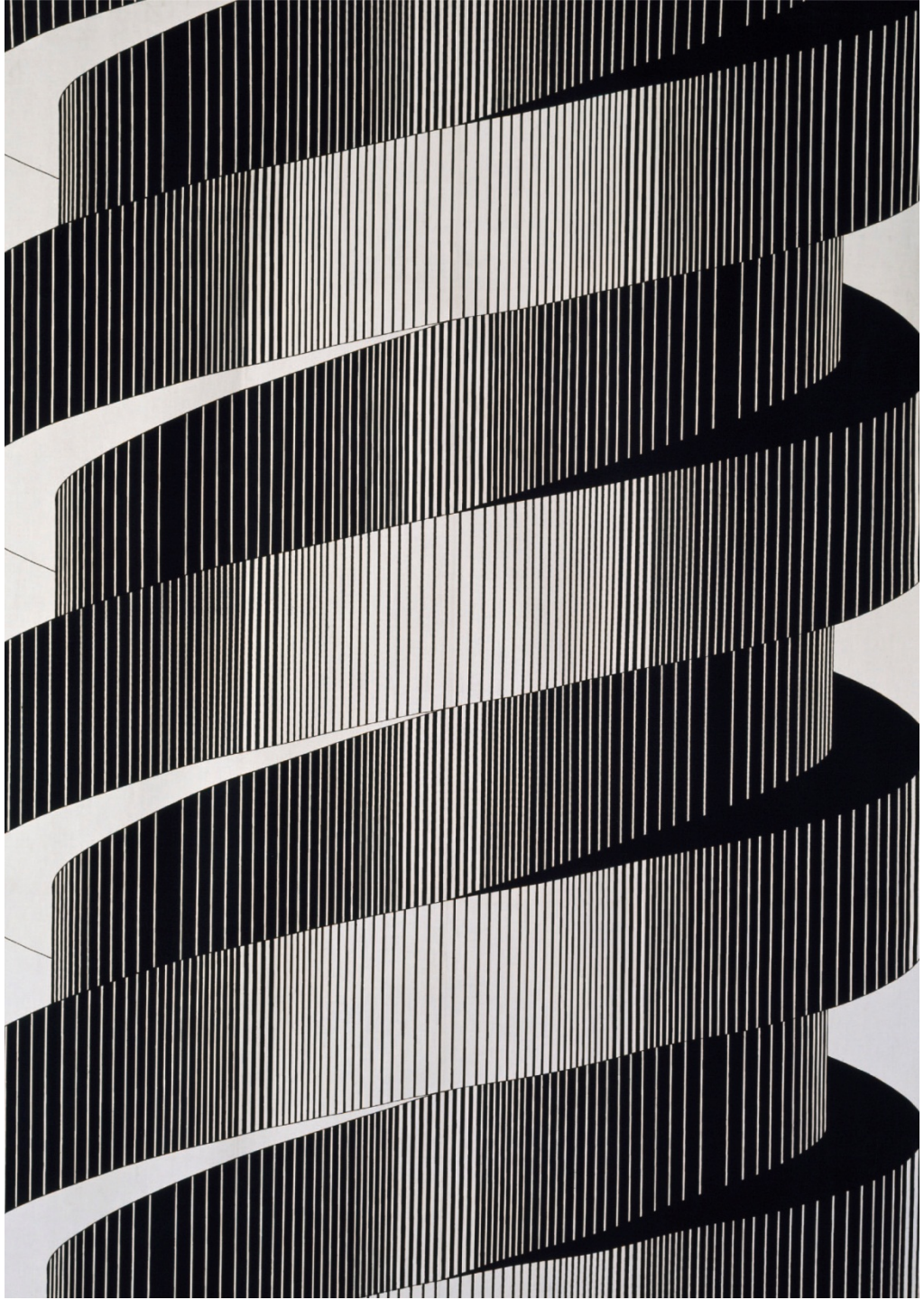


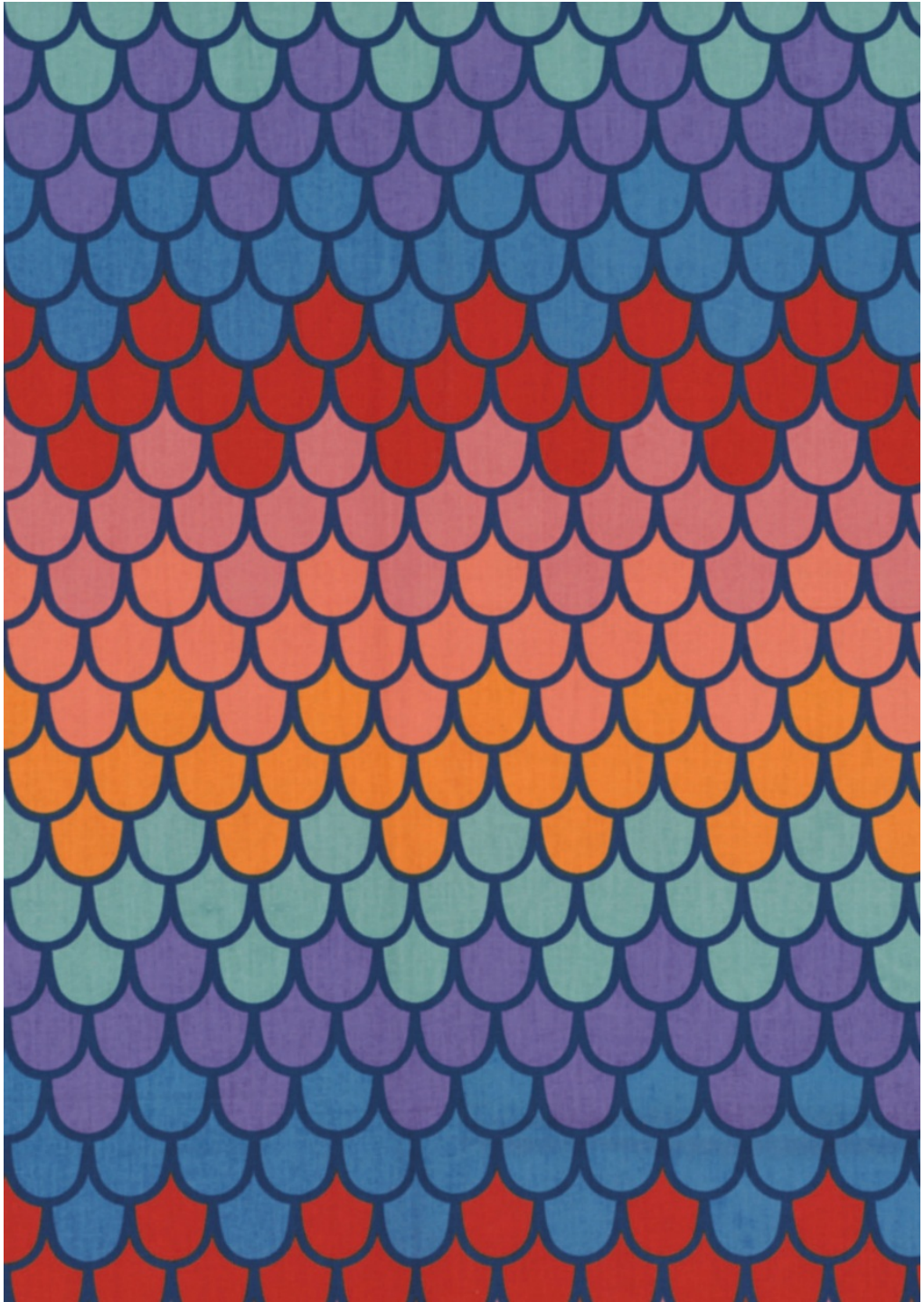
Repetitions in built architecture



Repetition and symmetry in fabrics.
Time can be seen in the composition of the textiles.
British textiles from the 40´,50 ánd 60´.Heals.
Victoria and Albert Museum.

Barbara Brown for Heals ,1969.



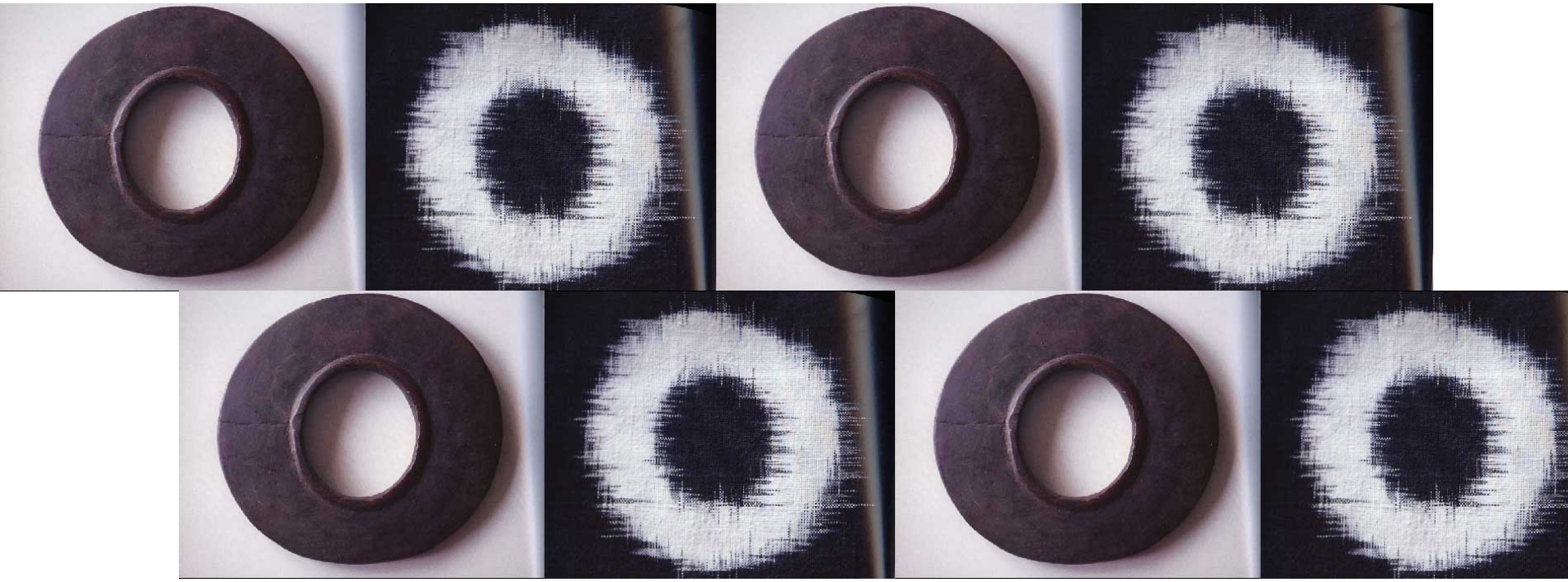


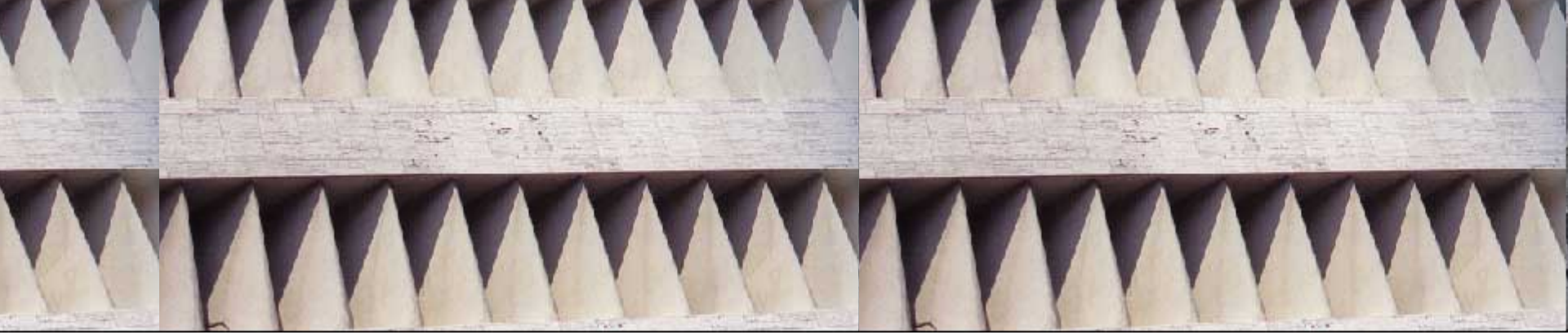
Surface design

- Surfaces that seem to be continuos are created by repeting the module or wanted figure element systematically .

- The surface is consited together out of the printed elements and the empty space in between the elements.Unprinted and printed areas together create the rhythm to the surface.

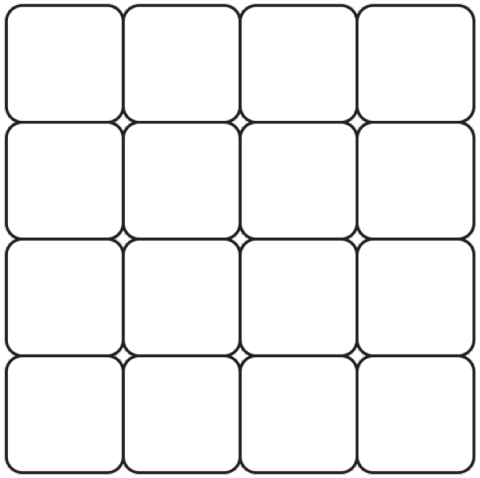
- The **rhythm between the figure elements** is born from the changes and **variations between the unprinted betweenand printed parts.**

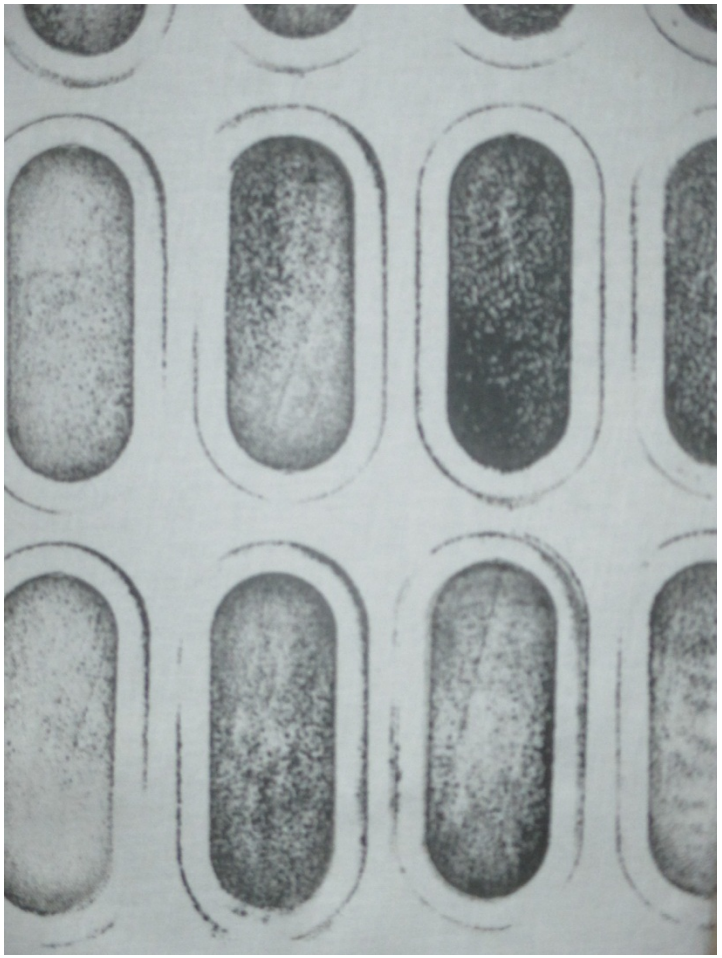




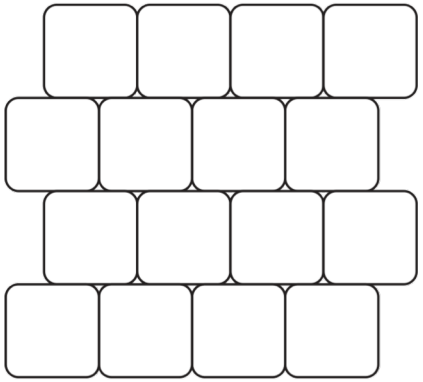
- When building the surface , note:
- To what **direction** you repeat the figure
- How **often** you repeat the figure(density)
- Horisontal, diagonal ?
- As an ornament
- Movement in the surface

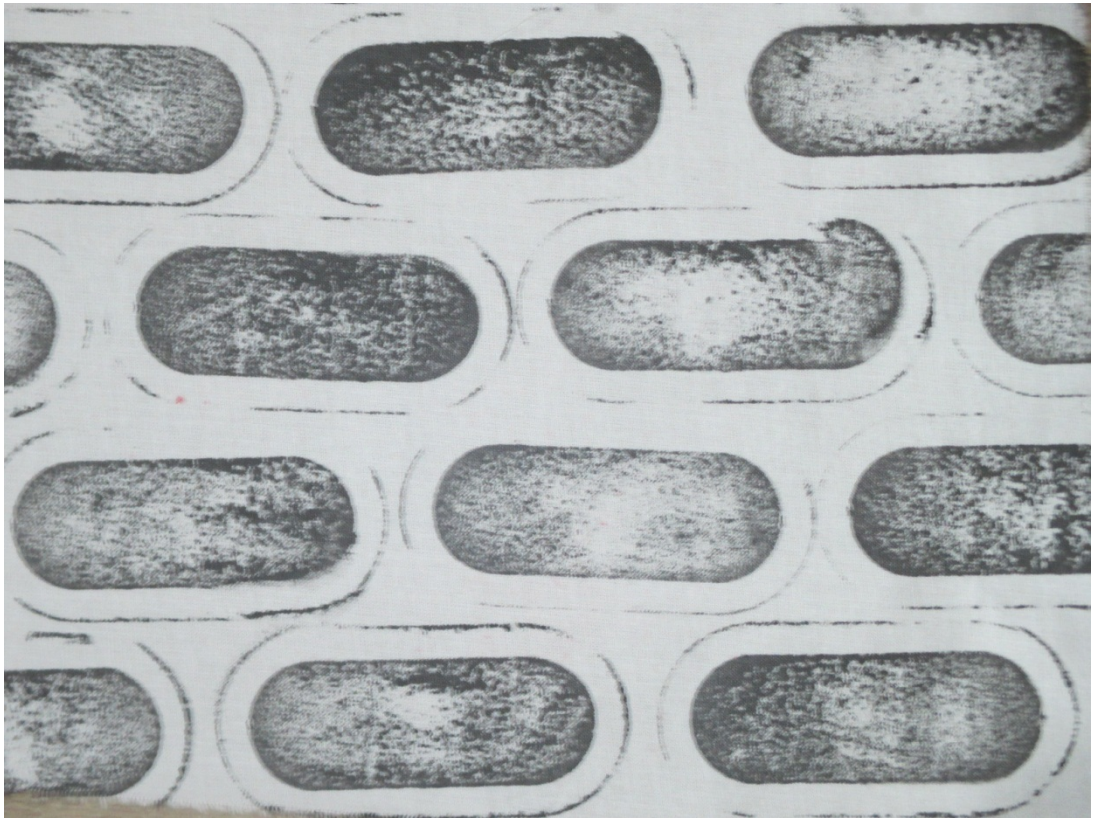
Even repetition



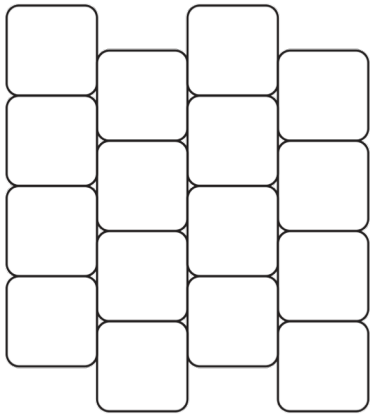


Sideway repetition

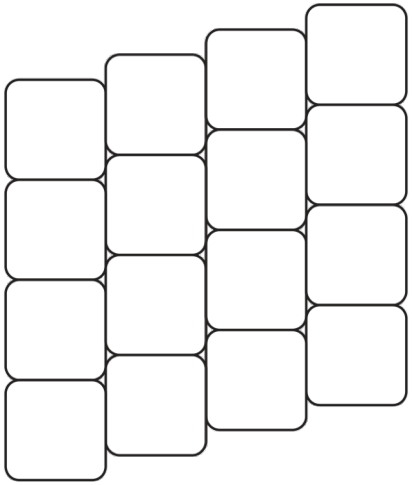




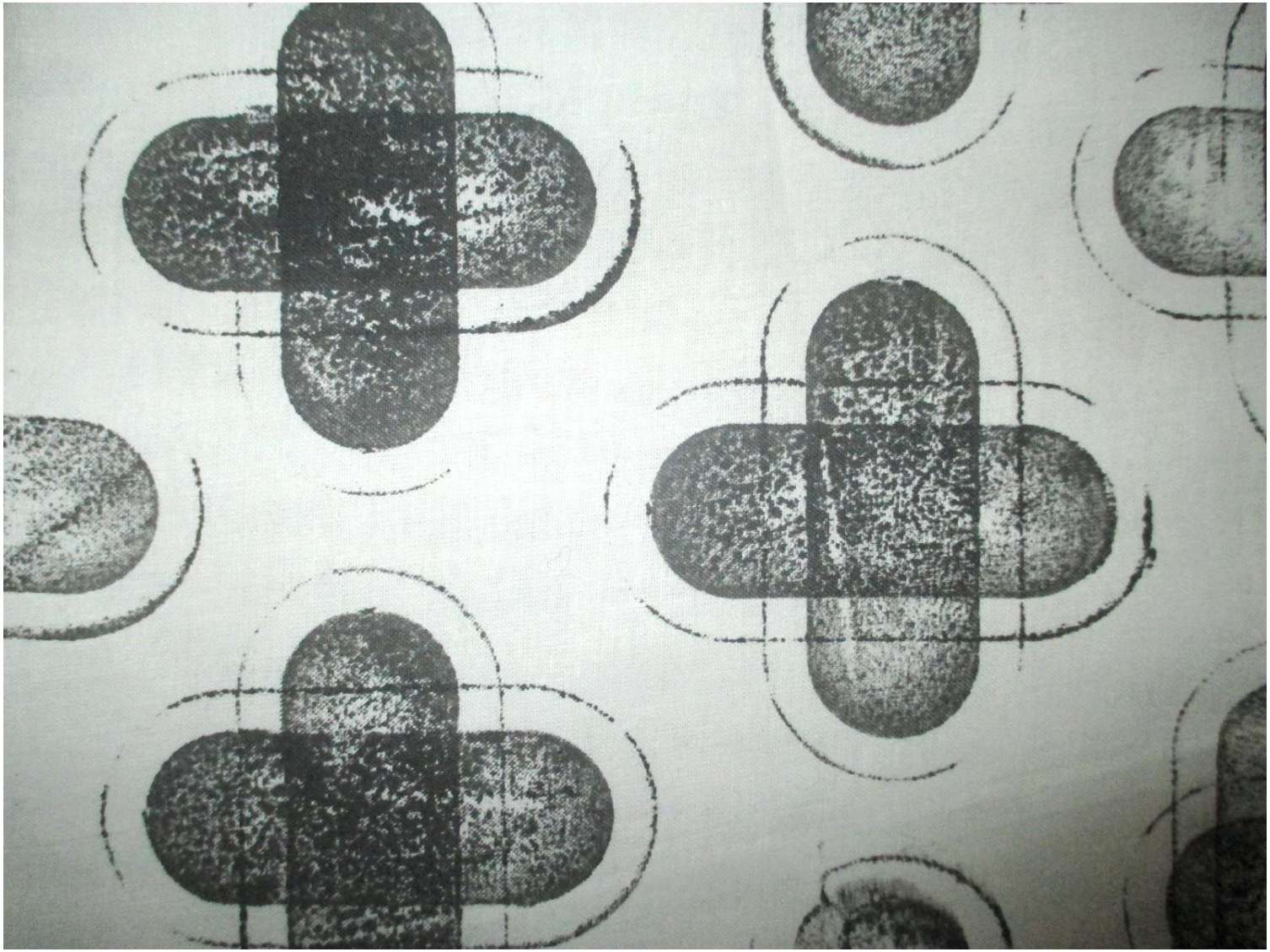
Upwards repetition

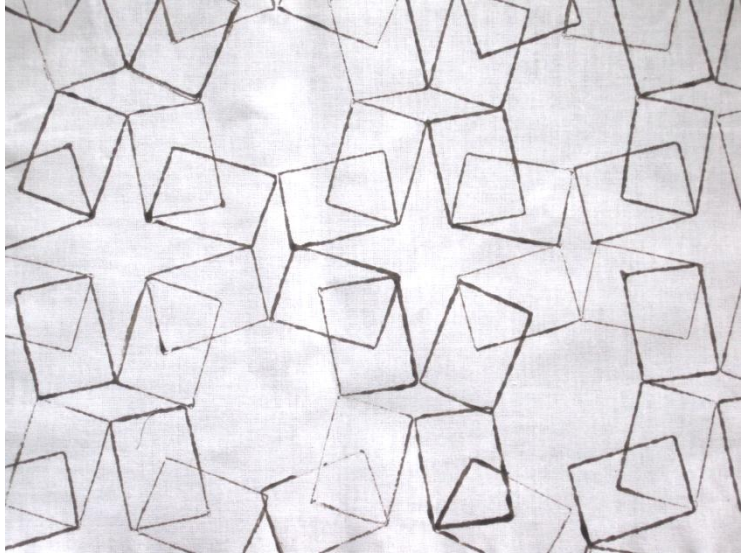


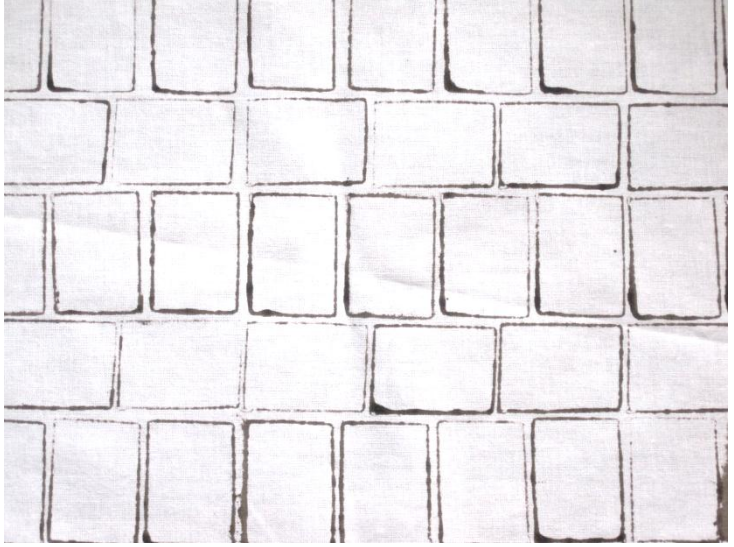
¼ drop repetition

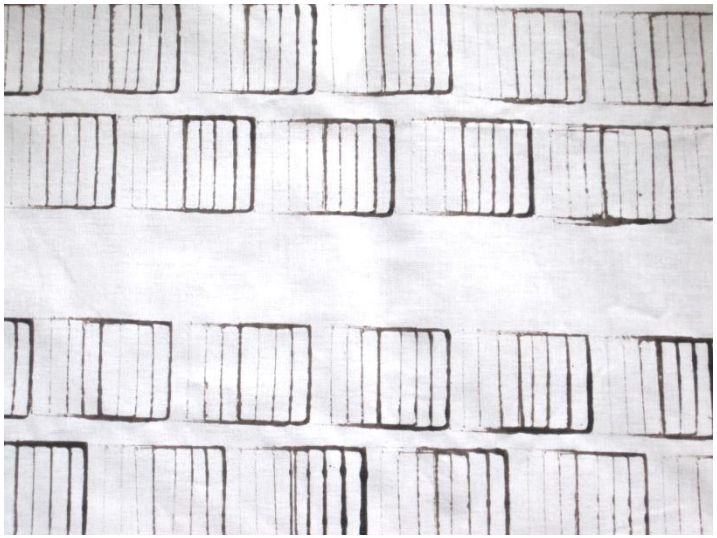


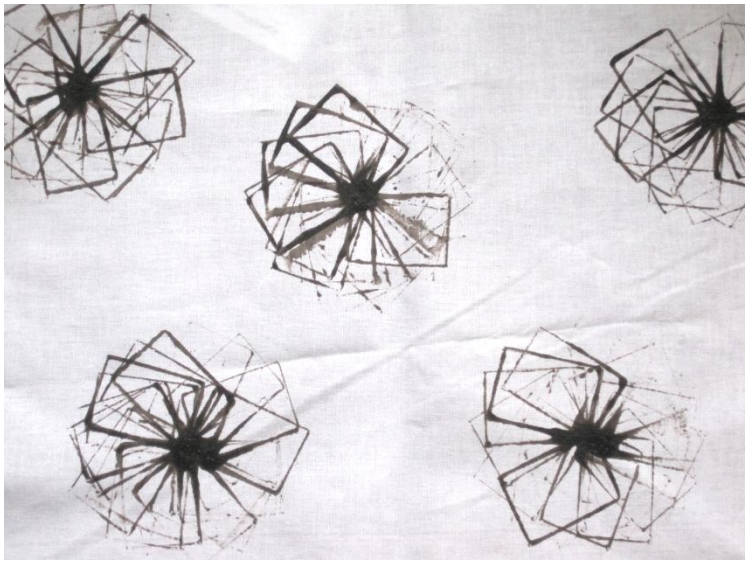
Even repetition, crossed



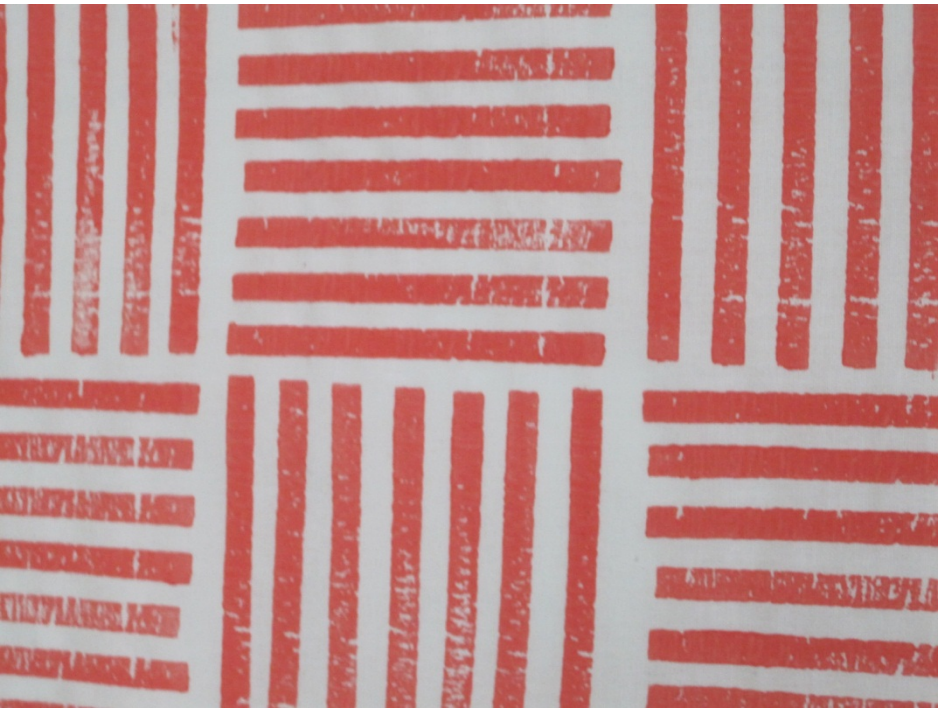


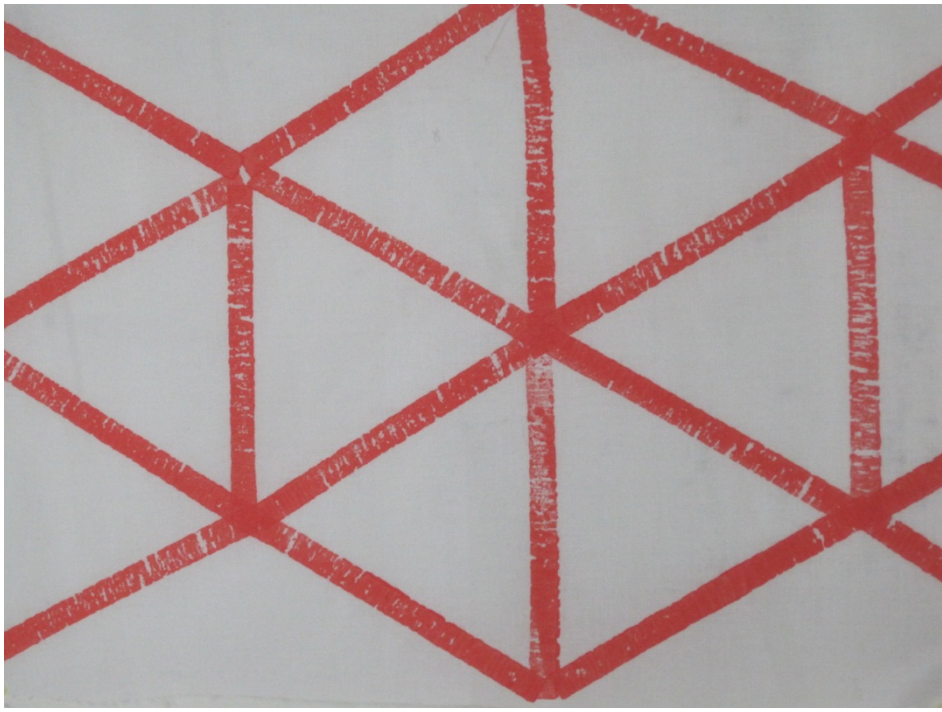




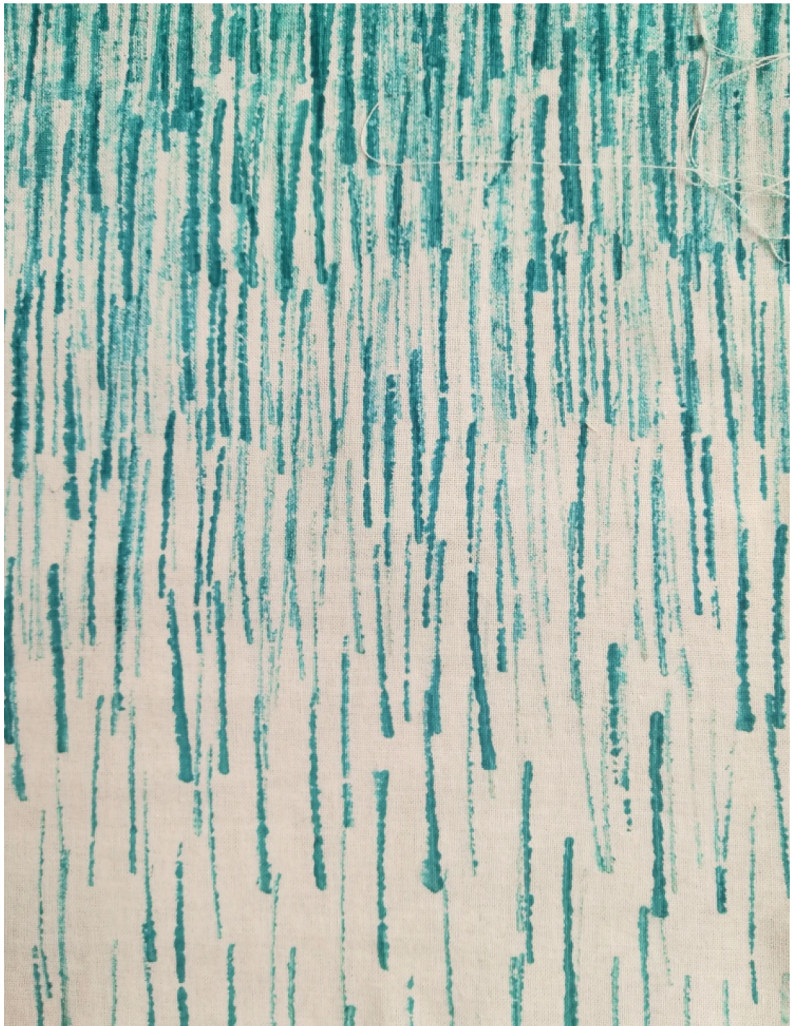


Examples

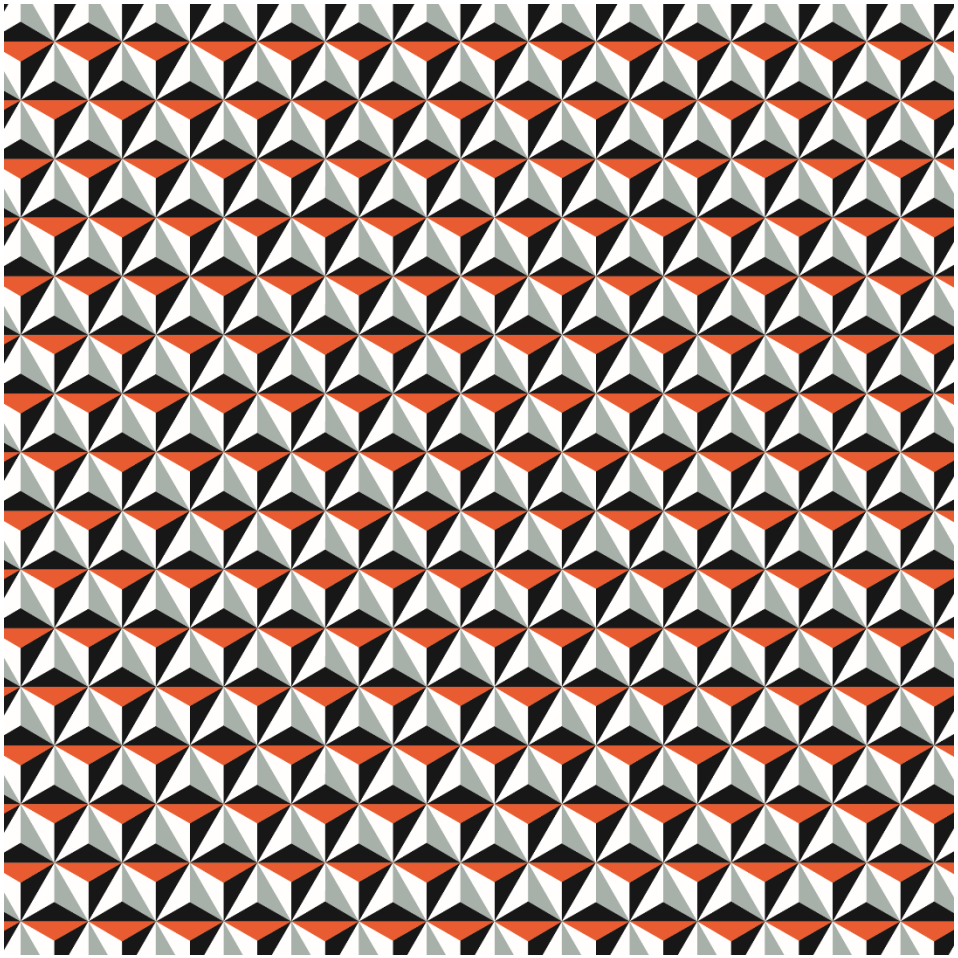


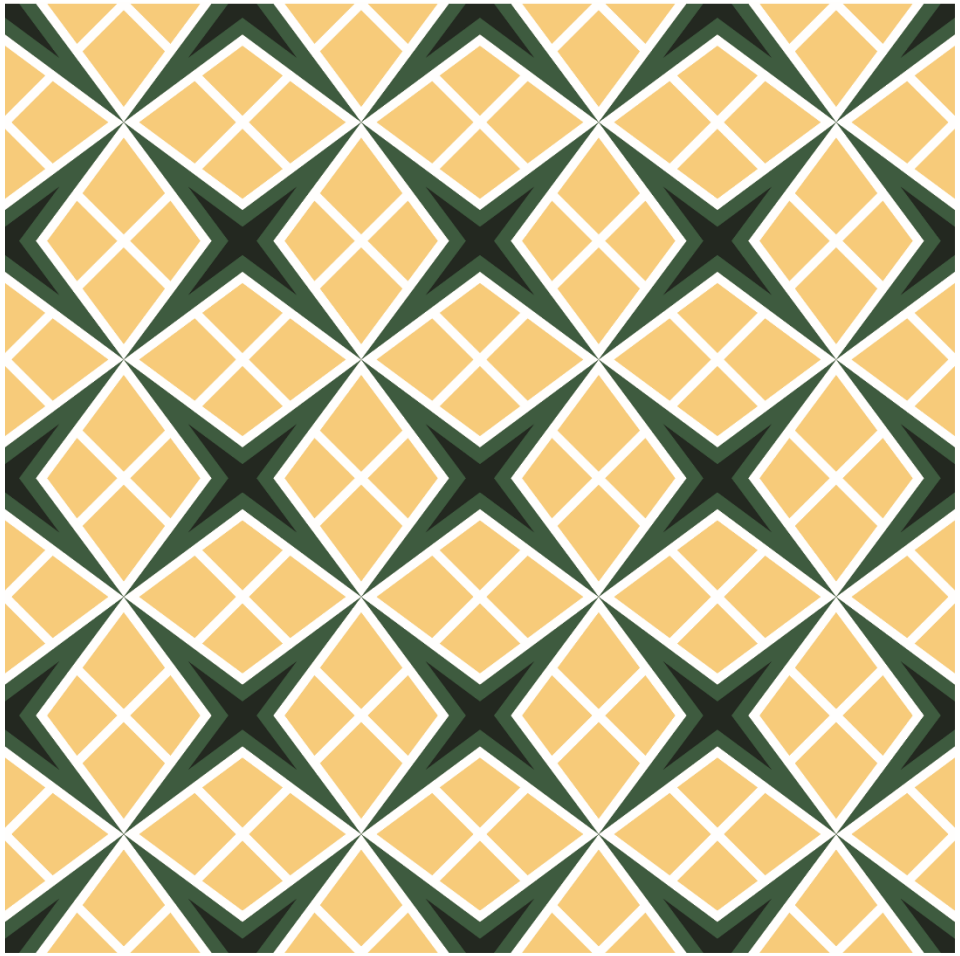


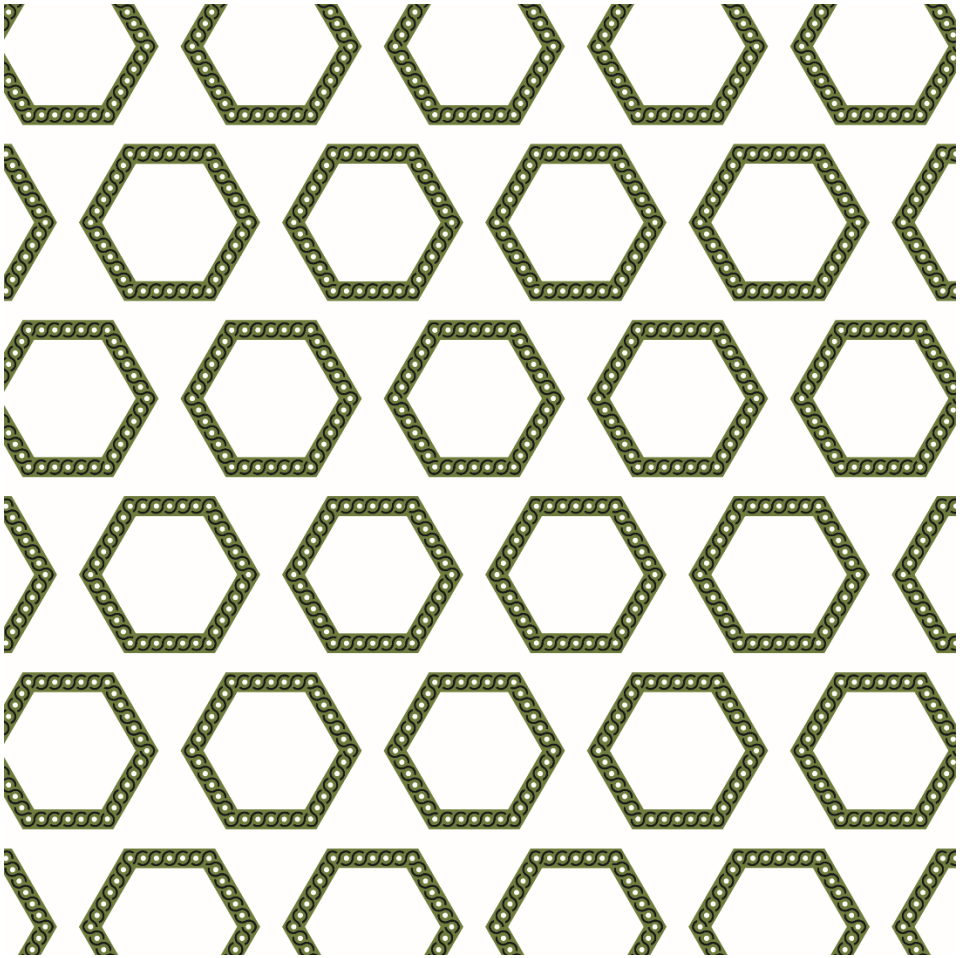
Note the **density** of the figures as a possibility

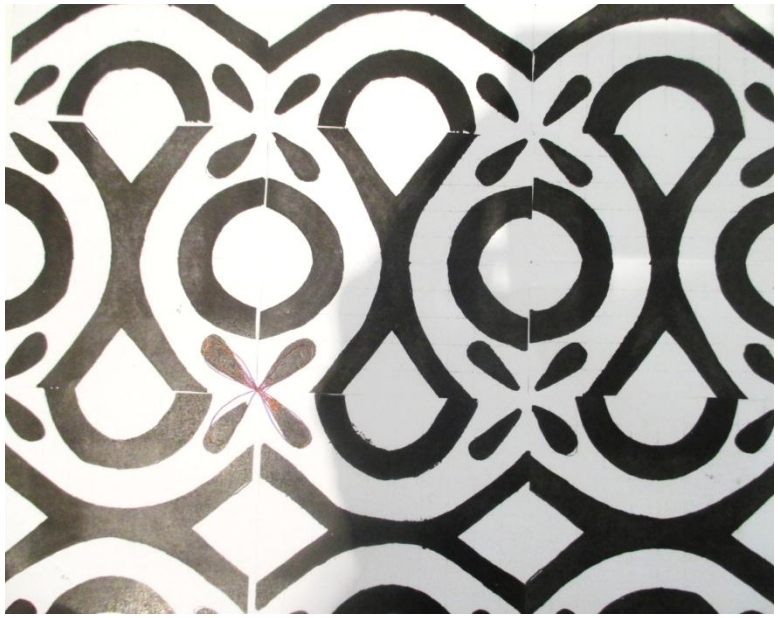


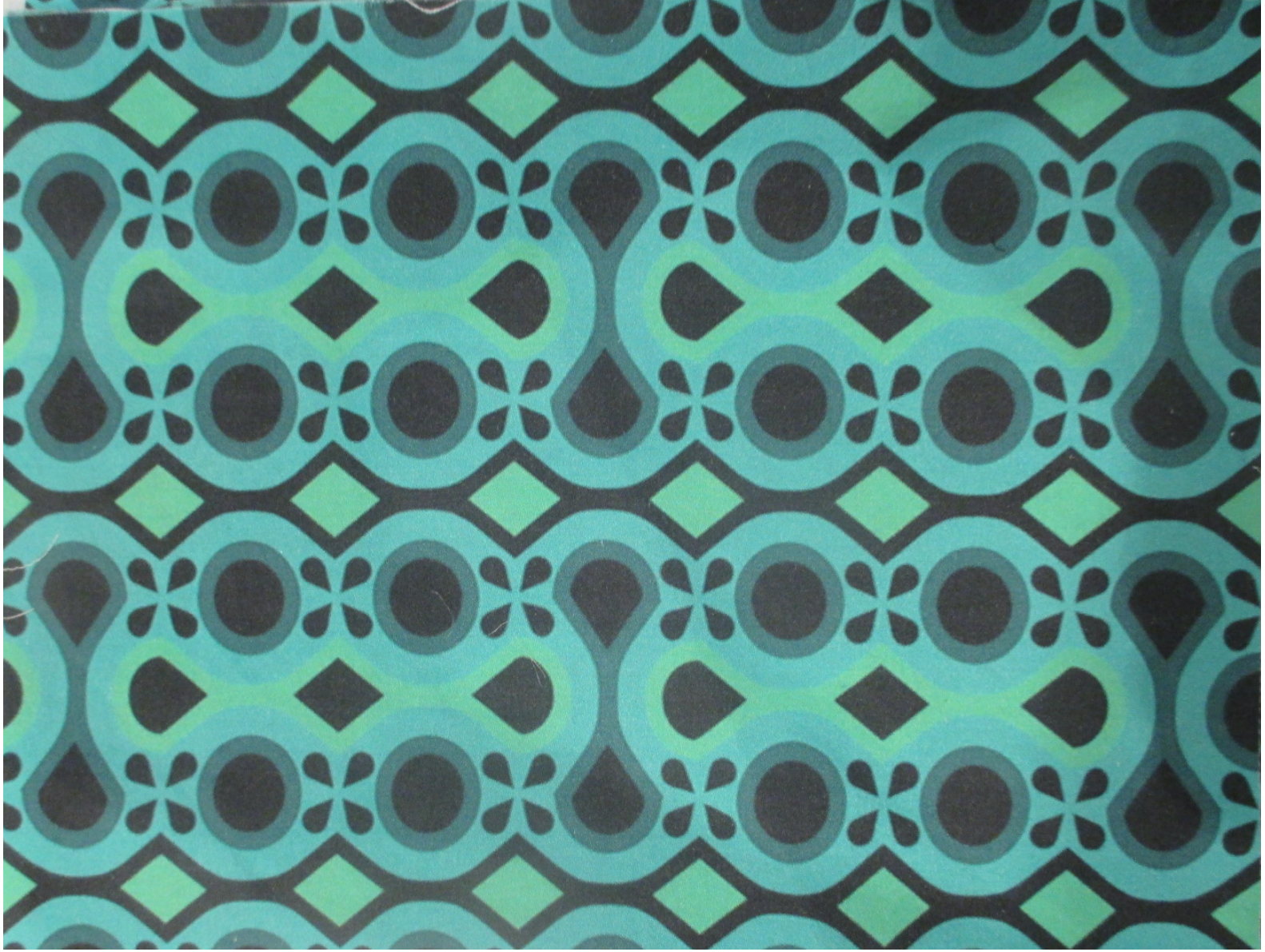
Repetition in tiles

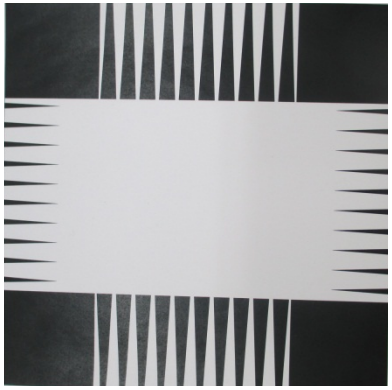


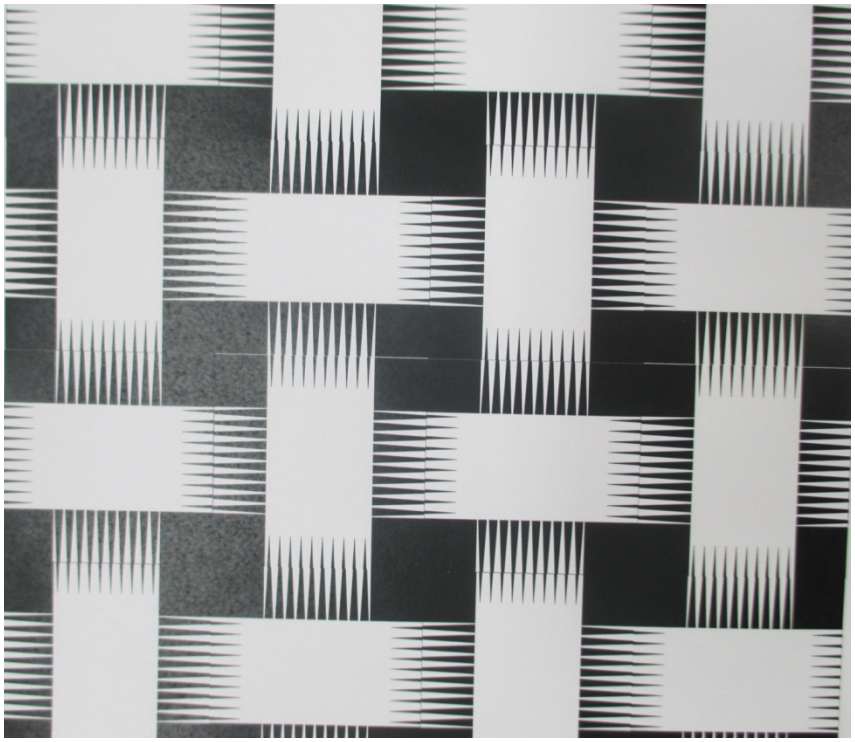


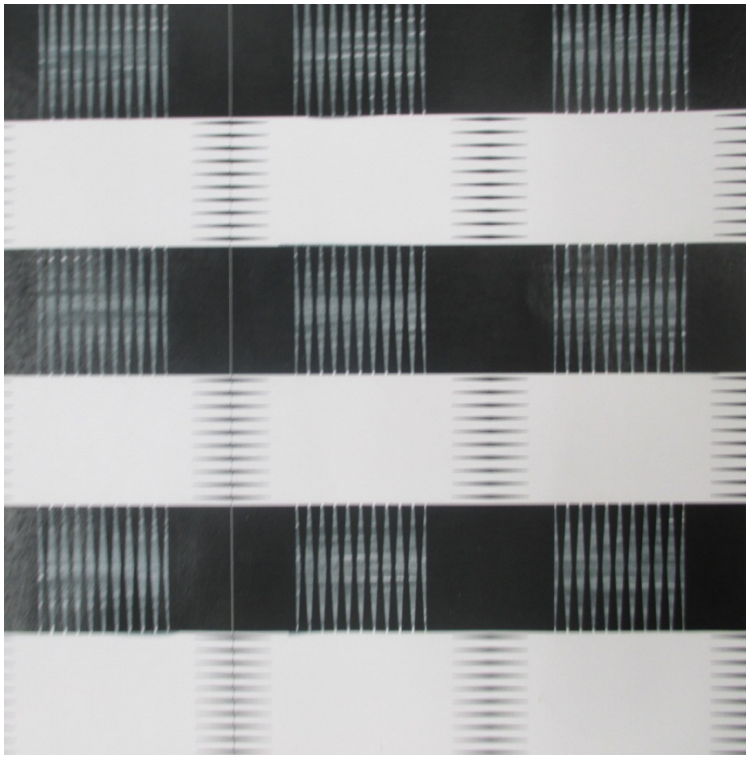


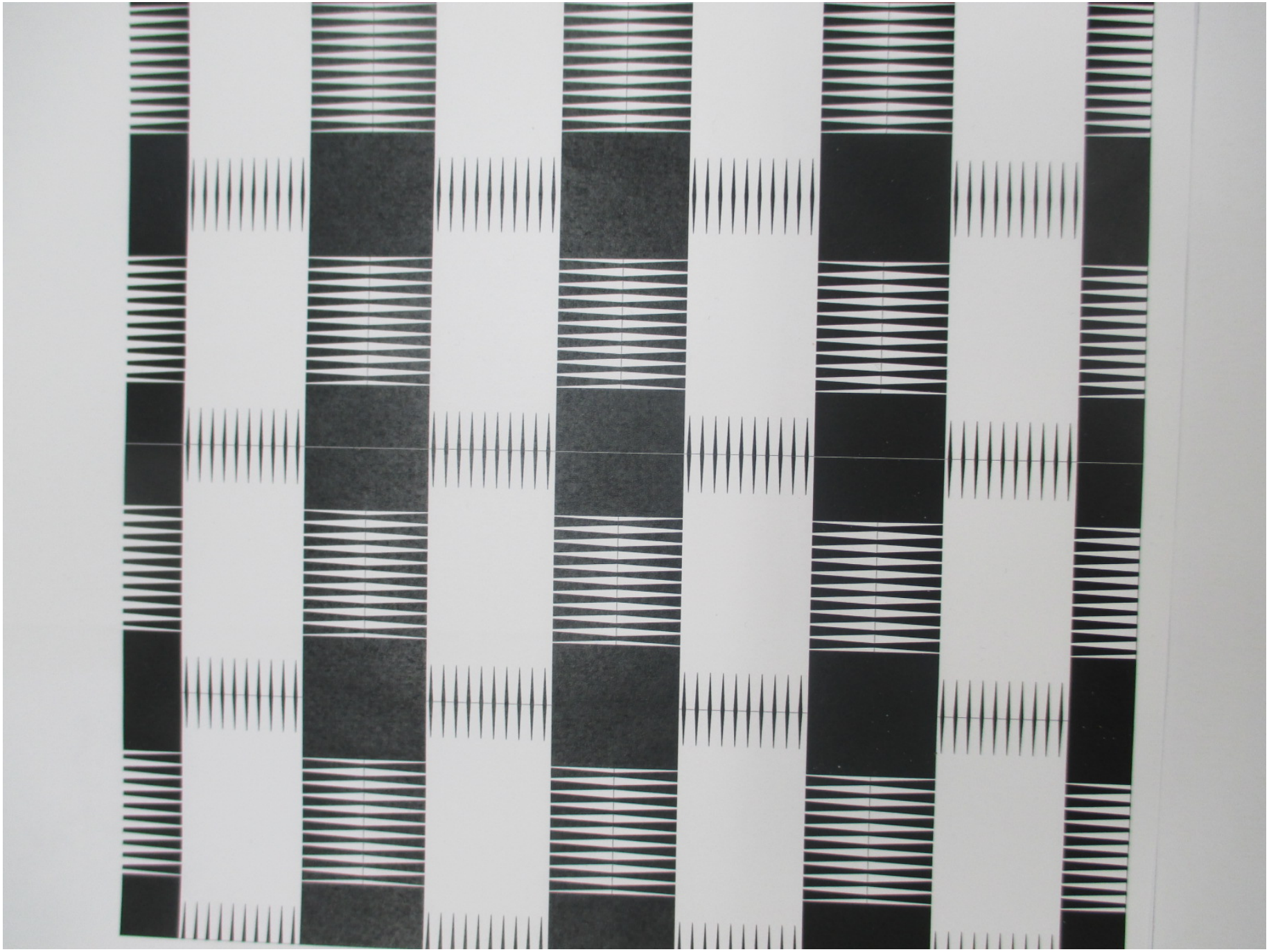








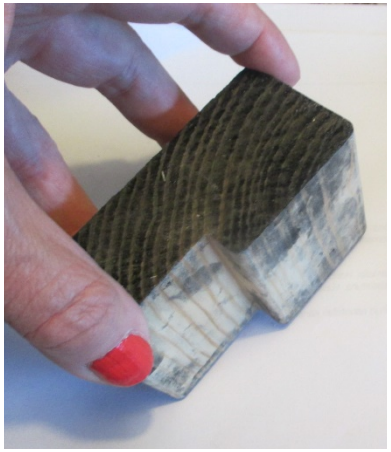


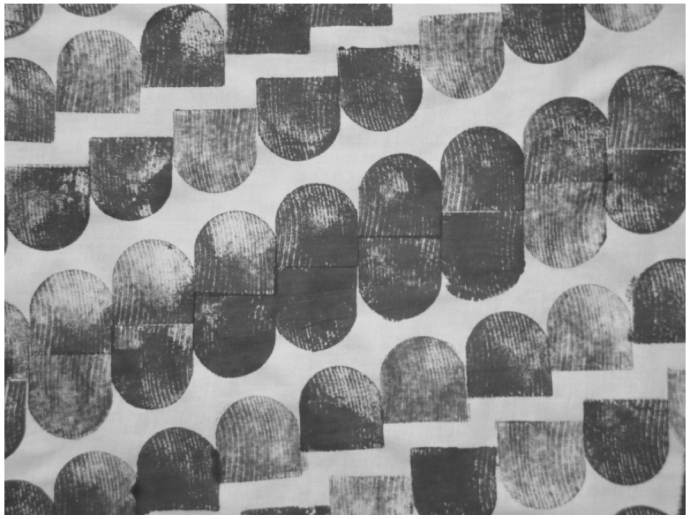


Wooden block
Exercise 14.92018

- Each of 7-8 group get their own wooden **block form**
- Each student print 3 **different printed versions** with the given wooden block print tool
- Use **one color** and **one tool** only (do not change the tool or colour)
- Do thinking/drawing/planning in advance.
- Work as a team. After all have done their versions in the group, choose in the group **6 most different repetition versions** to the presentation 28.9.
- Send to my courses your presentation and analyses of the group by 25.9 .


50113





Target of the task:

- Create your own systems in surface design.
- To understand the mathematical actions by making them and making visible the beauty of it at the same time.
- To make visible the power of repetition and the different possibilities to use repetition
- Use symmetry and mirror effects in many ways ans to study, what the printed form matter there in the system

- Design the surfaces by changing the distances, rhythms, **density of the prints** and changing the direction of the print.
- Trough opposites you get easily started:
- Upwards –downwards
- Mixed- in order
- Send to my courses your presentation and analyses of the group by 25.9 .