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Pattern Research Project

Dept. of Interior Design

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2017

## Pattern Research Project: An Investigation of The Pattern And Printing Process - Polka Dots

Chansong Kwak

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The image features a dark gray background with a repeating pattern of white circles, commonly known as a polka dot pattern. The circles are arranged in a regular grid. A white horizontal bar is positioned in the center of the image, containing the text "Polka Dot" in a black serif font.

Polka Dot

## MATERIALITY AND CRAFT

### DYEING

Threads are dyed with pigments considering differences in material content. Cotton is cellulose fiber which takes reactive dye very well. Although reactive dye is a synthetic dye, it achieves the fastness for dyeing cotton. Reactive dye is a synthetic dye, it achieves the fastness for dyeing cotton. The critical discovery to a modern reactive dye developed around 1950s.



Maharam. (2017). *Dots by Paul Smith*.

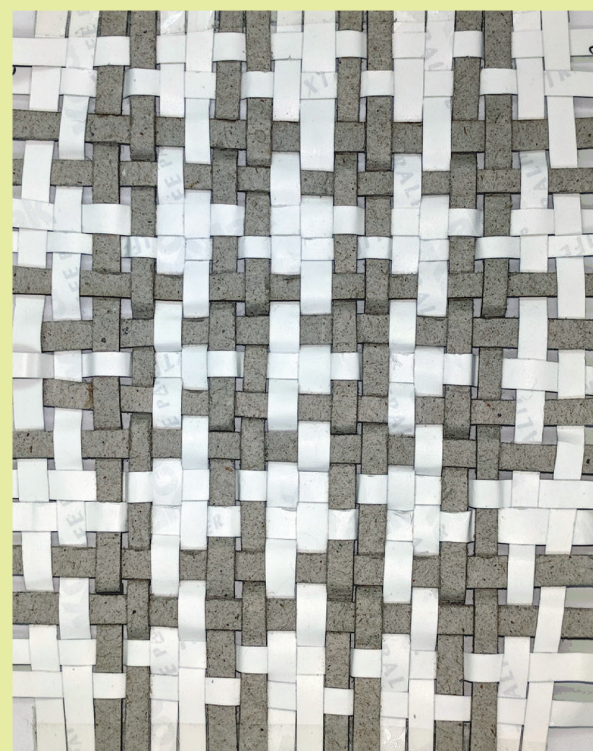
Nylon and polyester are both synthetic fiber. Nylon works best with acid dye, just as it used in wool or cashmere because nylon was made to imitate protein fiber. Polyester can be difficult to dye because it does not absorb dye very well as it is excellent in resisting stains. Polyester requires high temperature of heat to accept the color.

### WEAVING

The pattern is made by weaving on acrylic backing. The process of weaving is industrialized in order to produce large quantities. The houndstooth check is woven with end-and-end warp with cotton and nylon in the weft. End-and-end warp is a method of weaving one to one square alternating dark and light thread. It creates a faint heathered effect. Polka dots are made with twill weave with a mercerized cotton. Twill weave is made by wefts reeving two or more warp at a time through a single direction. Twill weave is made by wefts reeving two or more warp at a time through a single direction. Fabric made of mercerized thread last longer and wrinkles less than unmercerized fabric. Mercerization refers to treating fiber with lye (sodium peroxide). Mercerization makes fiber lustrous and prevents from shrinkage.



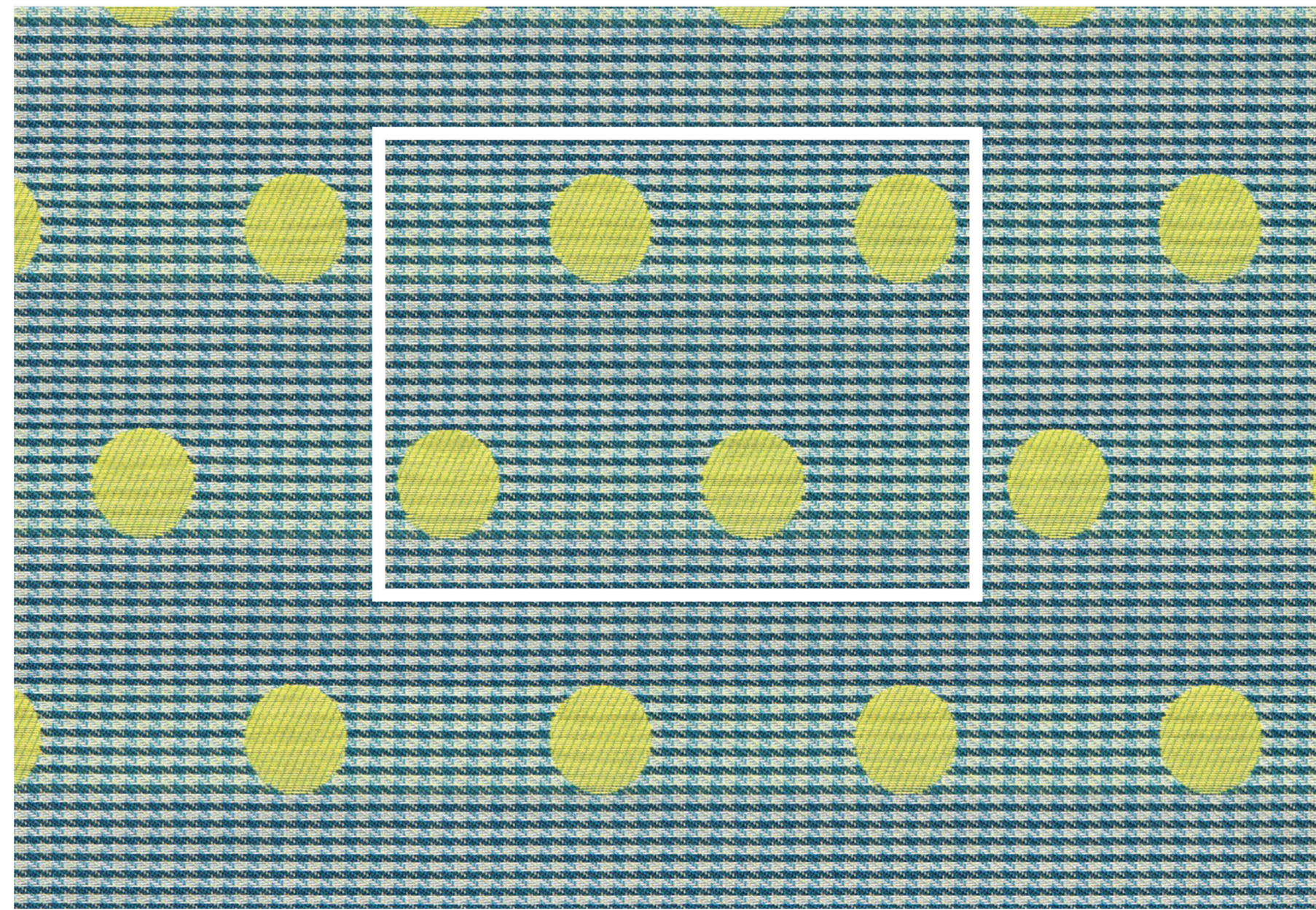
Kwak, C. (2017). *Twill*.



Kwak, C. (2017). *End-and-end*.

## Pattern Research Project-Polka Dot Pattern

Chansong Kwak 2017 December



Maharam. (2017). *Dots by Paul Smith 006*.



Maharam. (2017). *Install*.

### IDENTIFICATION

'Dots' by Paul Smith, 2017

006 Carambola

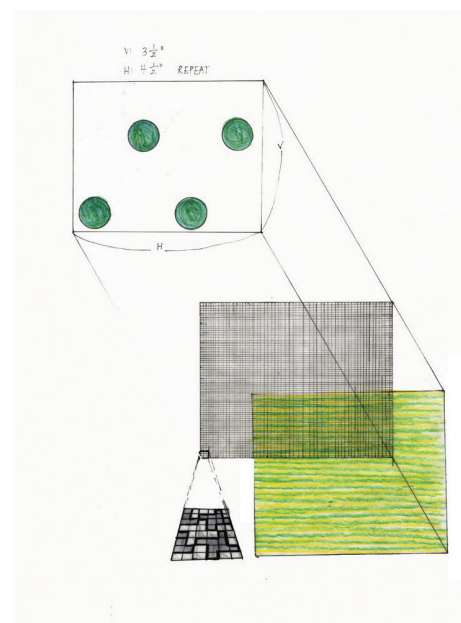
Repeat: 3 1/2" for vertical and 4 1/2" for horizontal

Material Content: 52% cotton, 36% Nylon, 12% PC

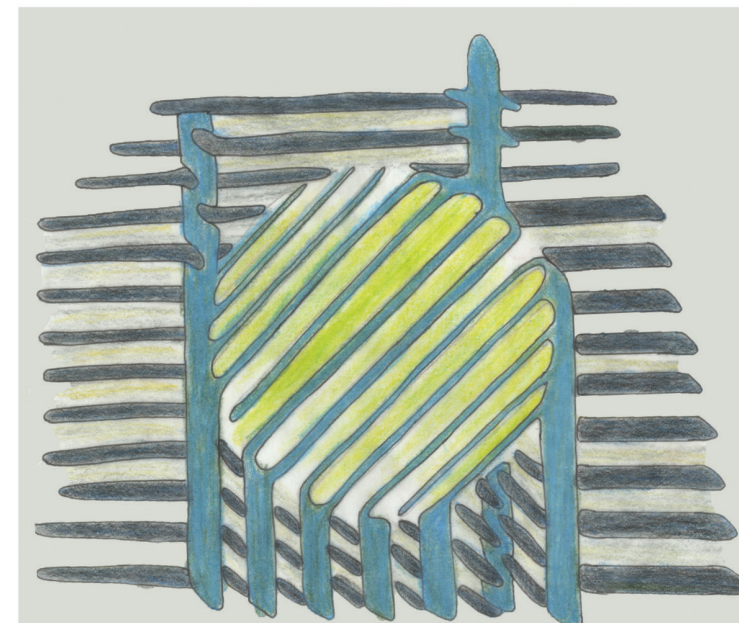
Recycled Polyester

Application: Seating

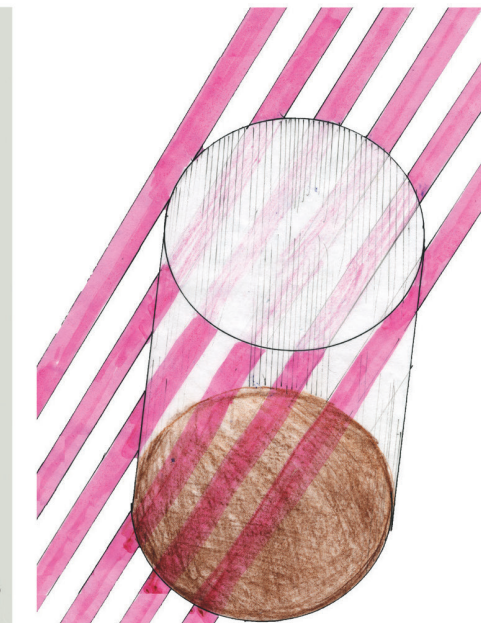
Color: 9



Kwak, C. (2017). *Scale*.



Kwak, C. (2017). *Color*.



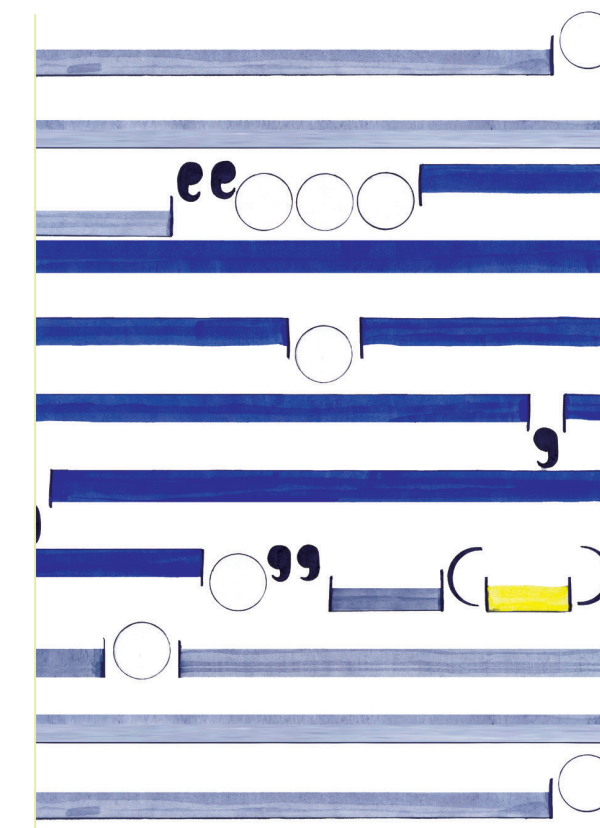
Kwak, C. (2017). *Layer and Composition*.

### COLOR

The color language for this pattern is multichromatic. There are 9 sets of different color available for this pattern. Available colors for this upholstery textile are mostly softer tint of vivid colors which adds to the airiness of the polka dots. The color present in the background is Bondi blue, Glaucous blue and Gainsboro color under the variation of gray. The color in the foreground dot is lemon lime color under the variation of Chartreuse.

Polka dots are emphasized with brighter shade of color in which makes them positive space recessed from surface. Even shape and size of polka dots are spaciouly distanced and creates a rhythm of regular movement.

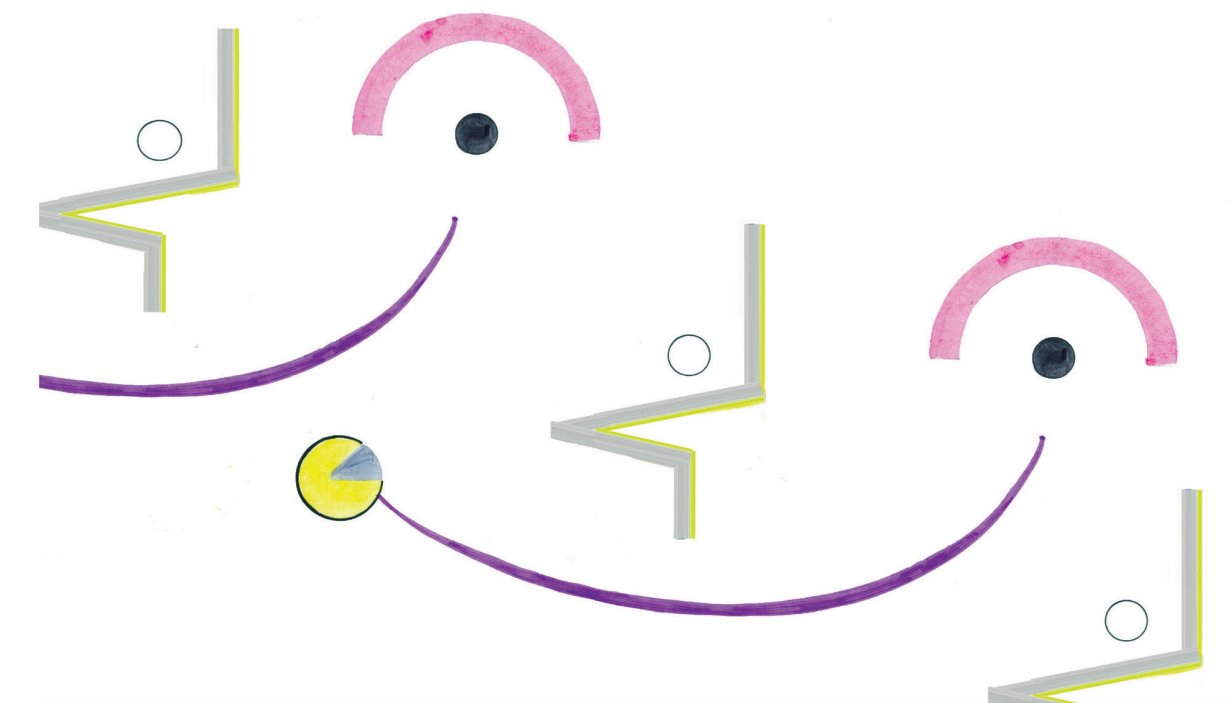
## PATTERN HISTORY



Kwak, C. (2017). *Classic With A Twist*.

The pattern 'Dots' was designed by Paul Smith with collaborative work with the Maharam. Paul Smith is a menswear designer known for his quirky twist to a traditional suiting for gentlemen and confident use of color. His design philosophy can be condensed into a phrase 'classic with a twist'.<sup>1</sup> Paul Smith taken into consideration of woven silk necktie for 2017 Spring/Summer collection. His 2017 Spring and Summer collection reflects his way of

positivity. He explained his collection as an attempt to bring a ray of sunshine in a world that is seeing trauma and uncertainty.<sup>2</sup>



Kwak, C. (2017). *Polka Music*.

Polka dot named after Polka music that swept across the central Europe from 1830s to 1860s which eventually landed in America. Polka Music reached its spike within the same period 1950s when commercially developed chemical dye enabled the mass production of dot pattern. The critical discovery to a modern reactive dye developed around 1950s. 1950s was also the post world war II era and Americans experienced the economic growth. Polka music or the Polka dot pattern was popular in this period in America because both of them had what people sought after the war. Endless repetition of same 2/4 beat and repetition of circles in vivid color background reflected a sense of security in ordinary life. Simple repetition of perfect circles embodied the Polka music with its easing exuberance and 1950's materialistic optimism.

<sup>1</sup> Simpson, V. (2013). PAUL SMITH: SINGULAR INDIVIDUAL. *Blueprint*, (331), 96-97,100,103,106,110. Retrieved from <http://proxy.library.vcu.edu/login?url=https://search.proquest.com/docview/1616134119?accountid=14780>

<sup>2</sup> Paul Smith. (2017). Paul Smith Men's Show. [Web]. Retrieved from <https://www.paulsmith.com/us/stories/ss17/womens-show-backstage>