

## INCREASING PRODUCT DIVERSITY – BLENDING WOOD AND FABRIC

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Research purpose. At our college we regularly organise project weeks as part of the curriculum, covering several professional subjects and promoting innovation in design. This research aimed to combine fabric (textile) and wood (veneer) cut in geometric shapes to create a blended material that would fold appropriately at the edges of the veneer. The work process included all phases of design, like searching for different solutions (e.g., for folding veneer onto fabric), and tackling the problems of designers in the search for inspiration and realisation. The idea of the concept sometimes exceeds reality or the possibility of production. On paper, things look much simpler than they can be realised later. This article presents lamps, handbags and clothes made of different fabrics combined with different veneers. In the process, we used different production methods, techniques and machinery devices (laser cutting), which will be explained in our presentation. When designing the product shapes, we focused on geometric figures dominated by a triangle, which is usually a part of a hexagon. All of that is very nicely visible in our products. After that, we set about stacking the veneer shapes onto the fabric to achieve optimal creasing and a homogeneous consistency of the wood and textile combination.

**Keywords:** wood, design, veneer, textile, fabric, geometric shapes, bag, jacket, lamp, laser cutting, project week, fashion

**Research Methodology.** The basis for the project was a geometric figure. Each student chose his/hers shape and prepared the experiment independently. First, we did a test with a thin fabric and cut out the chosen geometric shapes from the cardboard, then stack it on the fabric in a sequence to create a test combined "wood"- fabric material that will be appropriate for further use in planning.

**Results / Findings.** Depending on the thickness of the veneer we had to figure out the proper spacing between separate veneer shapes, which was shown to be 1 to 2 mm more than the thickness of the veneer. This way we were able to achieve suitable folding.

**Originality / Practical implications.** Inspiration was taken both from geometric shapes found in nature and from fashion and furniture designers, such as Issey Miyake.



Figure 1: Modular Bomber jacket

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Figure 2: Wooden bag

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Figure 3: Wooden lamp1

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