



DESIGNING AND CRAFTING WOODEN GEOMETRIC FORMS INSPIRED BY ISSEY MIYAKI

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Research field: V 003 Design

Research purpose. At our college we regularly organise project weeks as part of the curriculum, covering several professional subjects and promoting innovation in design. Our goal was to combine fabric (textile) and wood (vener) cut into geometric shapes to create a blended material that would fold appropriately at the edges of the geometric pieces to create a wooden curtain.

Research Methodology. Our inspiration was the Japanese fashion designer Issey Miyake (author of folding clothes and handbags). First, we experimented by cutting and glueing cardboard pieces onto fabric, leaving a small gap (2-3 mm), so that we could observe the creases and how the fabric bends because of it. The pieces were glued in specific combinations and compositions, that create different patterns. Thus, we observed the buckling and creasing of the material. The most important part of this project was that each student created their own composition and pattern using the pieces, which we then transferred into AutoCAD, where we observed and tried different ratios, to determine the final designs. After we confirmed our findings with our mentors we calculated the exact number of pieces needed for the curtain dimensions of 3500mm x 1000mm.

Results / Findings. After determining the right geometric shapes for the pieces, the shapes would be cut out of a sheet of cross laminated wooden veneer. The sheets are assembled in 3 cross laminated layers, the strips of veneer stitched together before glued and pressed in a pneumatic press. The thickness of the layers varied from 1mm to 1.5mm adding the glued, it lead to a total thickness of about 4-5mm. The species of wooden veneer varied in each case of use (Beech, Mahagony, Larch, Pine, Cherry, Oak, etc.). The finished sheets were then taken to a CNC laser and cut to the predetermined pieces. When the pieces were cut, we started gluing the elements on the fabric. The work was very painstaking and required extraordinary concentration.

Originality / Practical implications. After the work was finished, the products we created were rather large, which we then used as decorative elements such as curtains and tablecloths.

Keywords: AutoCAD, CNC laser, designer Issey Miyake, Japanese fashion, textile, wood



Figure 1: Author: Patrick Drvarič

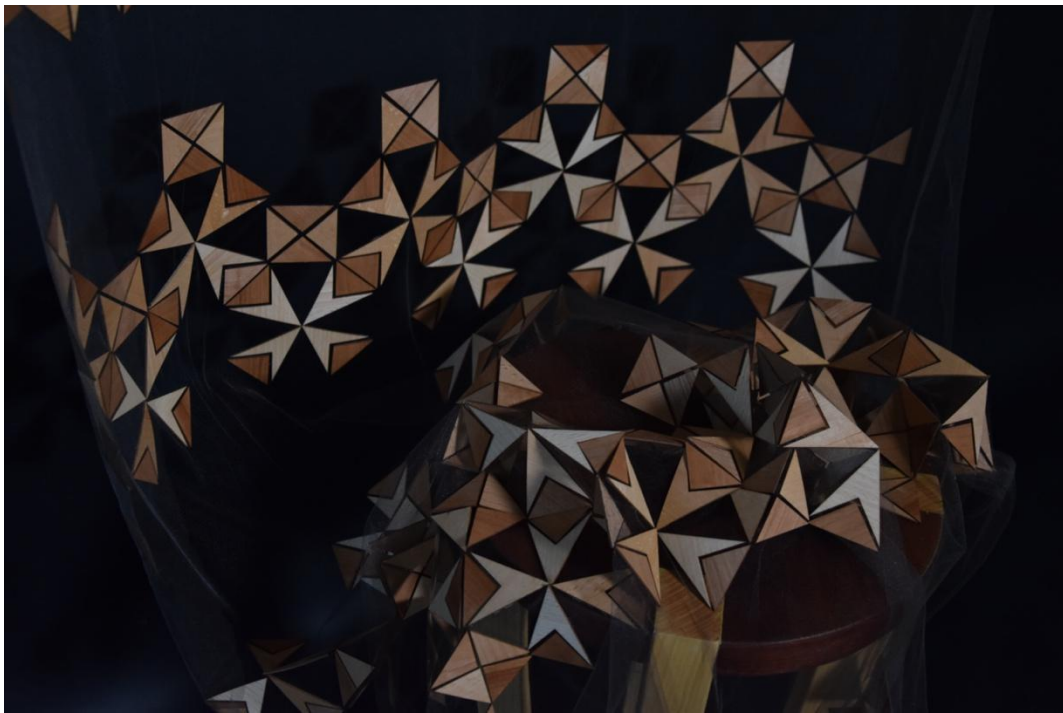


Figure 2: Author: Lucija Galun

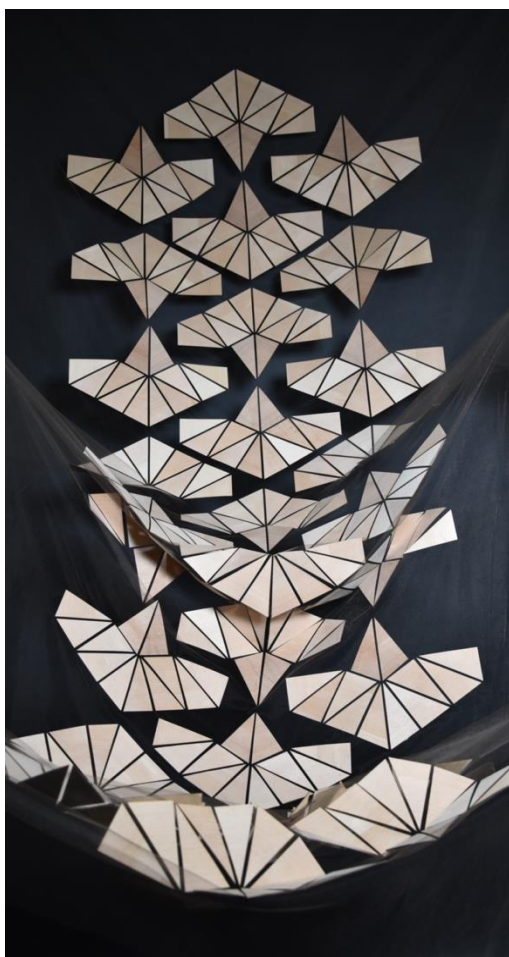


Figure 3: Author: Barbara Kovačič



Figure 4: Author: Nuša Colja