

ANNETTE DOUGLAS

Annette Douglas is a third-generation textile designer based in Switzerland. In 2011, she launched the 'Silent Space Collection,' the world's first product line of transparent acoustic curtain textiles, which was awarded the Swiss Design Award in 2011, the Red Dot Best of the Best in 2012, and the Dwell on Design Award in 2012.

The Silent Space Collection grew out of a collaboration with EMPA, a research institute of material science. Can you talk about this collaborative process?

I knew EMPA would be the best partner in this field. We started with brainstorming meetings between their textile and acoustics departments. Finally in 2009 we applied for a research grant from The Swiss Commission for Technology and Innovation, and then worked for over 2 years in a small and very efficient team. We spent a lot of time in research, in materials and their acoustic properties, in construction, in testing, etc. Our goal was to create a transparent or translucent textile with acoustic absorption, flame retardancy, and last but not least a nicely designed product.

You also worked with Weisbrod-Zürcher as an industry partner who helped produce specially woven samples for acoustical testing. Was this an iterative process?

I had worked with the company for more than 10 years as a freelancer so the processes there were very familiar to me. The sampling happened in close collaboration with the technicians and Oliver Weisbrod.

Is the fabric woven in a manner to achieve a particular air resistivity to provide sound absorption?

It is a mix of various components. In our research our focus was to discover the significant components in order to define a recipe. There are other components like the porosity, the weight, the finishing, etc. — all factors contribute to good sound absorption.



'Carmen' translucent acoustical curtains are used in front of glazing throughout the atrium.

All of the textiles in the Silent Space Collection use Trevira CS Polyester. Was your decision to work with this material based on aesthetics or functionality?

Yes, we focused on Trevira CS Polyester because of functionality. It is a well-refined product particularly if you want to reach the highly demanding flame retardant properties and sustainability standards for the contract market.

Was translucency a key element of the design intent?

Yes, translucency was from the beginning my intent of the product. Working with textiles and acoustics I noticed that there were only heavy and dense fabrics on the market which block light. So a light-filtering, daylight curtain or drape with good absorption properties was totally absent on the market.

As a textile designer I would assume that aesthetics are at the forefront of your practice. Did you feel aesthetically limited by the acoustical performance requirements in developing these materials? Did you ever feel there was a trade off between the look of the material versus the sound?

Personally I prefer to work on projects which feel, as a starting point, limited. It is an interesting and challenging process to design a good product out of limitations. In the research process I always had the design, the look, the touch, the appearance, the colours, the user in my mind. We dropped ideas which may have been interesting from an acoustic perspective but not from the design or user perspective.

Custom embroidered acoustical curtain designed for the Toni Areal concert hall, Zurich, Switzerland.



In 2014 you expanded the Silent Space Collection. Will you continue to develop materials for this line?

We worked on the extension of the Silent Space Collection in collaboration with EMPA. We realised that we can improve the absorption properties. The line STREAMER with STREAMER classic and STREAMER pro now reach up to 80 per cent absorption; WHISPER air is our lightest and most translucent fabric which absorbs up to 60 per cent.

Our strength and main focus is on acoustic projects, such as developing new acoustic products for our own brand or for other brands, or tailor made acoustic projects for buildings which we

develop in close collaboration with acoustic engineers and architects. For example, recently I received an ambitious request for a curtain for a concert hall at a university campus in Zurich. The acoustic engineers calculated the performance requirements, in terms of the absorption at various frequencies, and I had to develop the curtain to meet these requirements. Additionally, there were tight restrictions concerning flame resistance and of course many more limitations from the architectural side. The basis for this development was a fabric out of my collection 'Silent Space' and it is embroidered. The design works as tromp l'oeil. These types of projects fascinate me — when you are able to design a nice product and meet all of the targeted functional

requirements. The first feedback from the acoustic engineer I received was that the testing has shown that the performance of the curtain is as they calculated in their model. And we got all certificates from the testing institute for the fire requirements.

What are you currently working on?

We just finalized a project for the Musikinsel in Rheinau, Switzerland — a hotel and retreat for musicians. We worked with the acoustic engineer Ekhard Kahle from Brussels and in close collaboration with the architects Bembé Dellinger and the artist Beat Zoderer. We were in charge of all textiles in

the music hall — a combination of design, acoustics, and art. Beat Zoderer did the artwork and he wanted, if possible, to have the acoustical panels embroidered. I had to translate the artwork into an industrial embroidery process. Along the window front we put STREAMER classic out of my Silent Space Collection. The feedback from the musicians is great — they are impressed by the performance of the music hall and especially the translucent curtain which keeps the daylight in for their practice sessions. The hall can accommodate up to 80 people for orchestral rehearsal. ✧

A glass walled meeting room with 'Liquid' model translucent curtains from the Silent Space Collection.

