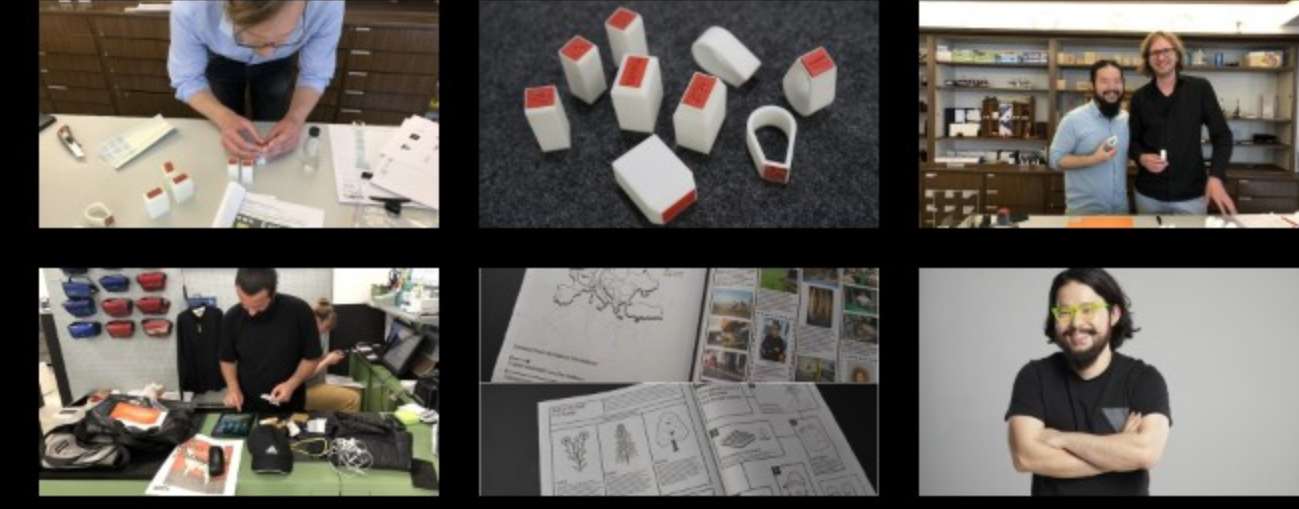




## Inspiration from My Three-month Stay for the Designer in Residence Program in Germany - Part 2/4

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### II. When 3D Printing Meets Traditional Industries – a One-Week Design Sprint with a Century-Old Seal Shop

The three-month Designer in Residence program in Pforzheim has offered me plenty of time to interact with local residents, communities and universities. In between, I had a short-term collaboration in design with the century-old seal shop Weeber. Not long after arriving here, I was immediately intrigued by the window display of the shop while loitering in the city center with two other colleagues of mine. Opened in 1912, the shop has evolved from selling traditional seals made of metal and wood to designing and manufacturing large installations, such as posters, curtains, shop signs, indicator lamps, corporate seals for commercial use, or customized seals for individual use, owing to its development over the past century.

The person that contacted me was Mr. Sebastian Hermann, the fourth-generation successor of the seal shop. He graduated from the Department of Market Management of Hochschule Pforzheim University. He and I hit it off at our first meet. He was skillfully arranging the seals while discussing with me about the pattern design on the seals. I could not help but wonder why he had not chosen a major concerning jewelry or design for the university. He gave me a simple answer that he would like to try some other areas since design existed in his everyday life and work already. ( \* Fig 1 – Seal shop owner Mr. Sebastian Hermann working together with me in designing seal handles (Photo courtesy: Sheng-Hung Lee) )

When I undertook the project with Mr. Sebastian Hermann, I planned to spend about a week working mainly with 3D printing machines to improve the design of seal handles, based on which Mr. Hermann would tweak the seal patterns accordingly. After some observations and discussions between us, I noticed that the existing seal handles made it rather difficult for their users to align the seals and apply them to the paper properly. I wondered what if the seal handles were designed to help users align with the paper, which would be not only aesthetically appealing but functionally useful.

With this in mind, I quickly printed out three kinds of seals. The first design is created by chamfering the four sides of the handle so that the user can make flexible alignments from any side. The second takes the directivity of the seal into consideration and chamfers only one side to make sure that the user can apply the seal from the right direction. The last one is made with a brand new approach by hollowing out the handle into a waterdrop shape that allows the user to use his forefinger to apply force. The hollowed-out seal uses less materials and can double as a desk sculpture. ( \*\* Fig 2 – Three different designs of seal handles (Photo courtesy: Sheng-Hung Lee) )

The three types of design concepts have been completed in one week. Though pressed for time, I had managed to experience and design the seal handles through different perspectives. As I told Mr. Hermann, the three design outcomes were produced using available resources within limited timeframes, and may not be the best or optimal solutions. What I consider the most important is how collaboration can be carried out with local residents with various cultural backgrounds in communication. I enjoy it the most when I utilize modern design methods and 3D technology in integration with conventional ways of manufacturing and thinking adopted by the traditional shop owners, creating more room for imagination and possibilities for the future seal design. ( \*\*\* Fig 3 – Taking a photo with Mr. Sebastian Hermann (Photo courtesy: Sheng-Hung Lee) )

### III. Product Defects Are a Blessing in Disguise – an Encounter with FREITAG in Munich

I ran into an outlet of the Swiss brand FREITAG during a family trip in Munich. It so happened the zipper of my laptop shoulder bag broke down, therefore I stopped by and asked about how to have it repaired. I also explained I would only stay for another month in Germany and that there might not be enough time to have it repaired in Switzerland. The store associates there were very nice, and after a careful and thorough check of my laptop bag they put a rush order on this to make sure I could get it back before leaving Germany at the end of June. They also gave me a substitute bag of the same type to use before they took away my shoulder bag. It was very considerate and reminded me of a similar episode in Amsterdam when Claudia, the manager of the FREITAG store there, helped me figure out when and where to send back my repaired bag after carefully inquiring about my situation. ( \*\*\*\* Fig 4 – The shop associate of FREITAG in Munich carefully checking on the part that needs repairing of my laptop shoulder bag (Photo courtesy: Sheng-Hung Lee) )

I did not take it that I happened to come across two considerate and kind FREITAG shop managers, but that this brand demanded a high level of service delivery from its employees. And it was not a first-time repair for the bag. Therefore I believe it was indeed a flawed product, especially the design of zipper. However, I as the product user was grateful for the flaw, which offered me a chance to experience its customer-centered services and get a better knowledge of the brand of FREITAG.

Once I heard an anecdote about FREITAG from a friend of mine. Last year, two founders of brand, who were brothers, came to attend the opening ceremony of the brand's store in Shanghai. And the first question from them immediately out of the airport was how they could ride a bicycle from the airport to the store. This was an excellent case of the principle of recycling and environmental friendliness the brand had been upholding. They lead by examples instead of just shouting empty slogans.

The brand has been extending from manufacturing bags made from recycled cloths for various functions to costume design now. After a careful reading of their recently released journal On The Road to F-abric taken from their store, I was quite impressed by how they convey in a clear and vividly narrative manner to the customers about their new cloth materials and manufacturing method. Compared with traditional cloth production, FREITAG clothes have saved much more carbon footprint and cost in labor and materials. The brand value is often fulfilled in these details, which interact with each other. ( \*\*\*\*\* Fig 5 – A FREITAG journal with pictures and texts, explaining its clothes' impact on the environment (Photo courtesy: Sheng-Hung Lee) )

I received the bag in June after being repaired for two weeks. This experience had not only helped me regain a serviceable product, but known one or two FREITAG lovers through the process of consulting about repair, and appreciated all the more the brand whose inside is as good as its outside.

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About the author - Sheng-Hung Lee ( \*\*\*\*\* Fig 6 – Author Profile)

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Sheng-Hung Lee is a designer, maker and educator. He is inspired by multiple domains of knowledge, different perspectives, and he thrives on creating new value for clients in multi-disciplinary teams. He is trained as an industrial designer and electrical engineer, and his approach to problem solving is influenced by his passion for how design and technology impact on and can be integrated into society. He has recently collaborated with the Industrial Designers Society of America (IDSA) to inform their strategy, service and user experience for the Asia market, and led the effort to incorporate such work in his recent book "IDSA Blueprint in Asia". Sheng-Hung has been focusing on organization design that creates systemic impact. He was invited to be a jury for multiple international design competition including IDEA, Spark Design Award, IDA Award and A' Design Award and Competition. He is a member of respected institutions such as Taiwan Society of Technology and Sociology, Phi Tau Phi Scholastic Honor Society, and China Technical Consultants Inc.

Sheng-Hung graduated with a double Bachelor's degree (Hon.) in Industrial Design and Electrical Engineering from National Cheng Kung University (NCKU), Taiwan. His work has won prestigious awards including IDEA Gold, Braun Prize, Core77 Design Award, Red Dot (Best of the Best), Spark Design Award, European Product Design Award (Gold) and iF Award. His works have also been showcased in Dubai Design Week, Venice Design Week and the Cooper Hewitt museum. Sheng-Hung teaches product design at Fudan University Shanghai Institute of Visual Art and Detao Masters Academy as adjunct associate professor.