



DOMUS ACADEMY
Master in Design 2005

THIRD SEMINAR

HYBRID UPHOLSTERY

Dietiker

Switzerland

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PROJECT TITLE

PIZ

This document has been prepared as a Project Report for the Second Seminar in the Master Course in Design according to the general brief with specific reference to the brief of our project leader. This Project also includes a digital presentation and a body of sketches and renderings.

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INTRODUCTION_

Dietiker is a Swiss furniture company with a long history of traditional furniture making. Focus of the production are chairs. Dietiker stands for high quality chairs, sober in presence and with high attention to detailing and designed connections. The company has a broad client base and is #1 producer in Switzerland for chairs for the public environment. Dietiker produces chairs for offices, conference rooms, hotels, restaurants, bars and retirement homes. With a recent change in ownership, Dietiker has expanded its product line and has introduced upholstered chairs and sofas. Still mainly sold in the public sector, the company wishes to enter the Home market. The goal of the Dietiker-Domus collaboration project was to design a hybrid upholstered chair. A chair to fit into the public as well as the home environment. A highly functional yet versatile chair to complement the Dietiker product line and at the same time consider future markets and customers.

KEYWORDS_

Hybrid, Precision, Refined, Detail, Elegant, Luxurious, Adaptable, Innovative

ABSTRACT_

The concept of Piz is based on an upholstery material sandwich which is suspended within a metal frame. The material sandwich consists of a lasercut honeycomb core between a top and bottom layer of material. The cavities of the core are filled with a random array of scrap foam pieces. The pieces protrude upwards creating a sculptural upholstery surface. The layers are sandwiched and fastened by stitching which follows the same path as the lasercut of the honeycomb core. The laser path and the stitching path are computer guided and can vary indefinitely thus creating industrially produced pieces with a luxurious “one of a kind” feel. The concept is a translation of the way Dietiker recycles wood scraps into new pieces of furniture in the upholstery context.

PROJECT DESCRIPTION_

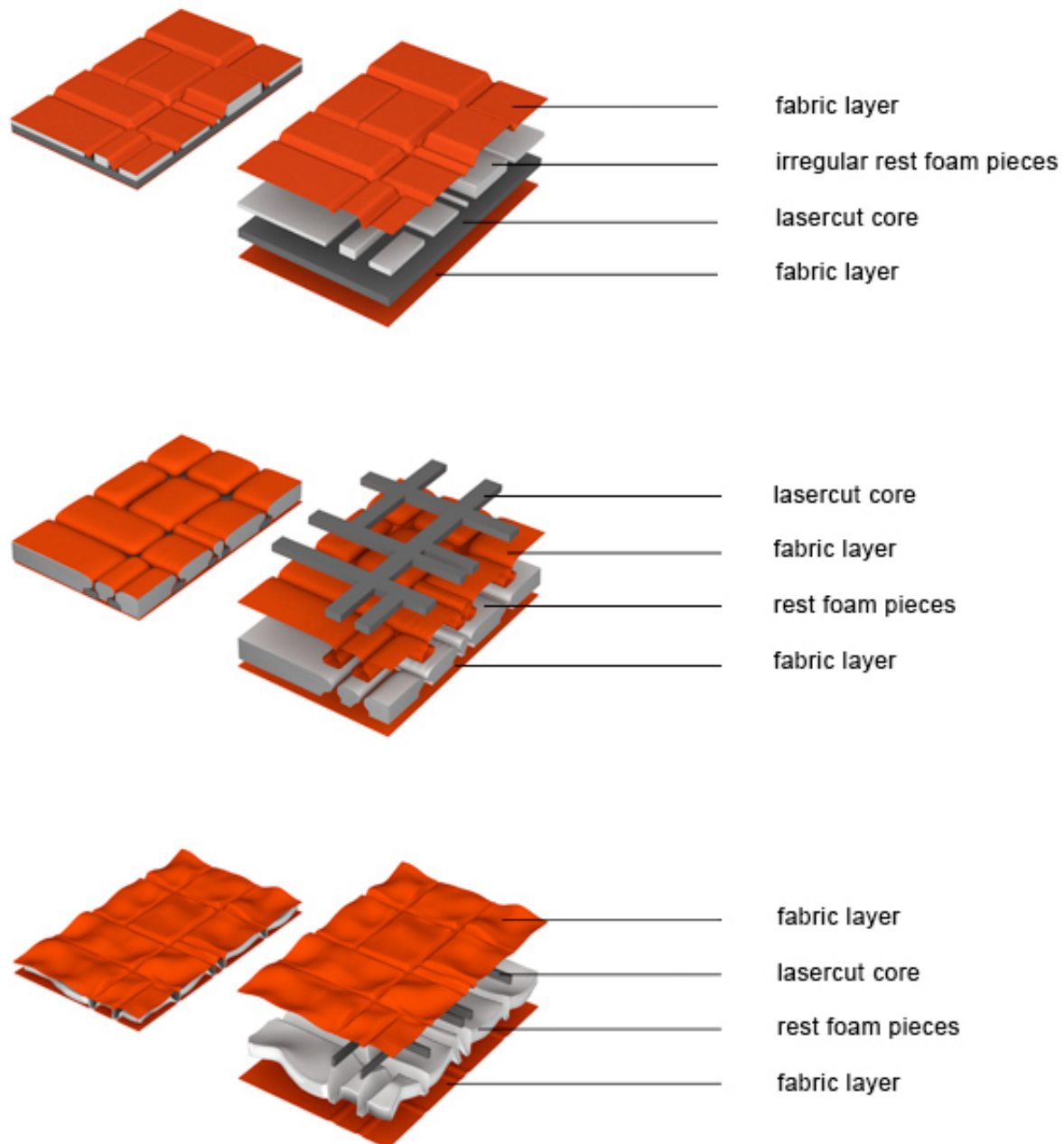
The goal of the project was to design a hybrid upholstered chair to fit into the Dietiker product line and at the same time be aware of future market and customer developments. The chair should be versatile in use and application and also offer the possibility of creating a product family. After extensive research on upholstered chairs, on forms, functionalities and materials, we decided that the family should include a lounge chair, a lounge chair with a table option, an armchair and a two seat sofa.

After a primary sketching phase, we moved to material experiments and created basic scale models to illustrate some ideas and discover new ones in the process. An upholstery material sandwich experiment seemed to create a lot of interest and we decided to make this experiment the basis of our project.



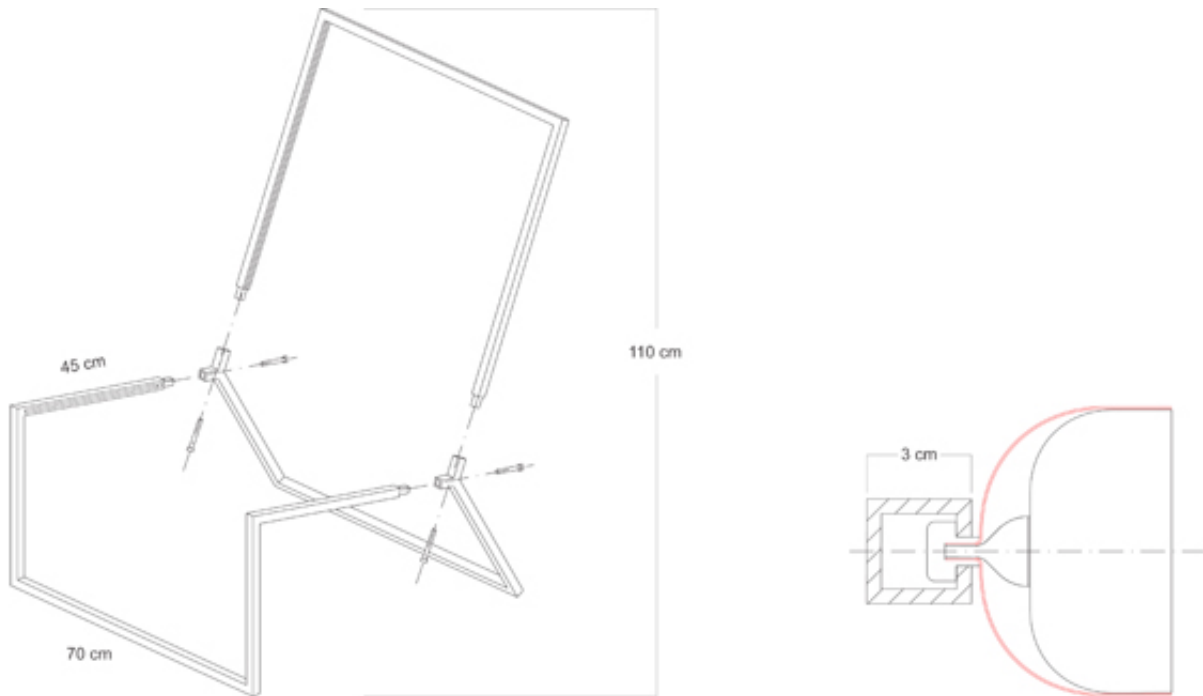
The idea of the material sandwich was inspired by the way Dietiker recycles the company's rest wood pieces into new furniture pieces of a great visual interest. The rest pieces are laminated into new wood boards and then cut to form new furniture elements. Cutting the laminations creates beautiful patterns, each slightly different from the other. The concept of the *Piz* upholstery material sandwich is based on the use of upholstery foam rest pieces. The irregular shaped pieces are compressed between two layers of fabric. The pieces are organized into a pattern and held in place by a lasercut core. Irregular in shape and height, the pieces create undulating protrusions on the surface of the material sandwich. The sandwich is fastened together by stitching. The stitching follows the same path as the lasercut core pattern and creates a relationship between the surface pattern and the internal structure. Both, the lasercut core pattern and the stitching are computer guided and therefore can change indefinitely. The design of the pattern can be deliberate or random, if based on a computer algorithm. We chose the following three examples, to

illustrate the variety of possible surface patterns and effects in regard to different sandwich layering.



As the upholstery was the focus of our project in construction and visual effect, we felt it was important to create a frame for the chair to complement and not dominate the upholstery in appearance of the overall chair. We analyzed the pieces in the Dietiker product catalogue in regard to their presence, formal language, construction and detailing. Dietiker furniture is not exuberant. Forms are geometric more than organic, angular more than free flowing curves. For the frame of our chair, we decided on a very minimal and linear design to support the strong visual of the upholstery sandwich. The frame is constructed from square steel tubing which can be chromed or powder coated in any finish. The frame consists of three welded

elements with a machined track in the seat and backrest elements. The upholstery sandwich is finished on the edge with a sewn-in connector (see detail below). The connector slides into the track of the seat and backrest elements. The frame elements are assembled and fastened with connectors.



Piz is a lightweight chair with a suspended sculptural upholstery seat.

CONCLUSION_

Piz is a basic chair. Basic in the sense that the design of *Piz* is flexible. It is adaptable and expandable. *Piz* is a chair with indefinite possibilities of upholstery patterns, an industrially produced chair with a one of a kind character.

Our project is a material experiment and an upholstery innovation. This upholstery innovation can be translated into other furniture pieces for contemporary and future scenarios. The scale and shape of the pieces making up the sandwich could be exaggerated forming a landscape of sculptural floor seating (example). Dietiker is an evolving company, just entering the Home market. Many product areas will open and *Piz* has potential to offer many interesting solutions.

Within the given timeframe, we have conducted a deep investigation and have explored many different possibilities. We have created a family of upholstered seating which is neutral enough in appearance to fit into many different environments and different enough to create great visual interest. It would be interesting to see where this project could develop was it to be continued.



from left: armchair, lounge chair with table, two seat sofa, lounge chair

REFERENCES_

I cannot record all references as our research was very intensive and broad in spectrum. This is a selection of referenced material.

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