

Textibel [texti'bel] , *mindre brukligt substantiv för textil och möbel* (av lat. *te'xtile* 'väv(nad)', *te'xtilis* 'vävd', av *te'xo* 'väva' och av fra. *meuble* 'möbel; husgeråd'; från lat. *mobilis* 'rörlig'): (1) textil som möbel (2) design- och produktutvecklingsprojekt för sittmöbler med textilens unika egenskaper i centrum; utforskar och utmanar sittmöbelns konstruktion, komposition, funktion, struktur, dekoration samt tilläggfunktioner (3) samarbetsprojekt mellan Textilmuseet i Borås, Textilhögskolan i Borås, Chalmers tekniska högskola i Göteborg, HDK - Högskolan för Design och Konsthantverk vid Göteborgs universitet samt näringsliv (4) utställning bestående av produkter, frågor, påståenden och en glimt in i framtidens sittande. HIST.: sedan 2006, Borås.

Ann-Kristin Agesund, information officer. In the discipline of art science she has specialized in the development of design and architecture from the middle of the 19th century up to today and in this field she has instructed, reviewed, and worked in exhibition design and in investigations related to design ventures. Presently she works mainly as a project coordinator for Textibel at Borås Textile Museum and teaches design history at the Swedish School of Textiles. Other commissioners are the Royal Institute of Technology, Chalmers University of Technology, Handelsakademin, and various upper secondary schools. For several years she was one of the co-workers at FORM Design Magazine, a member of Svensk Form (the Swedish Society of Crafts and Design), and chairperson of the regional organization Svensk Form Väst (the western section of Svensk Form).

Textibel® – Textiles as Furniture

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Abstract: Our objects change over time and some of the factors of this change are the conditions, innovations, knowledge, and creativity of society. Regarding the development of seating furniture from modernism up to today, much of it consisted of simplification, reduction in the amount of material used, and new applications for materials and thus development toward new forms. We are able to discern that textiles have made contributions to pioneering milestones in seating furniture several times over the last century. We may guess that a "paradigm shift" lies ahead of us in the "wake" of modernism. Several (international) designers have taken an interest in new ways of using textile materials in seating furniture, which differ from conventional covers. We may speak of Textile as Furniture, instead of Textile for Furniture. The Swedish School of Textiles and Borås Textile Museum have in collaboration with Chalmers University of Technology, Technical Design Engineering, and the School of Design and Crafts at Göteborg University picked up on the trend and created a course made up of workshops where product development of smart uses of textiles in seating furniture and furniture in Smart Textiles take place. The development has attracted participants from the business community, researchers, university colleges, and students. This new "genre" of seating furniture is called Textibel (protected by trademark), which is the name of both the product as well as an exhibition that will present innovative product development using textiles starting in 2008.

Furniture in change

It is obvious that over time we expect changes in the motives and objects we encounter. It seems equally certain that each époque, society, and culture is founded on specific experiences and conceptions which leave their mark on the products developed. As knowledge development occurs, our artefacts – or products – will change as well. Our time still dwells in the wake of modernism, which in itself was a revolution in design and product development in Europe while at the same time war, disease, and living in confined quarters was the reality faced by many people. Together with industrialism and urbanization this was one of the basic conditions for the development of design, regarding social standpoints, language of form, and last but not least the choice of materials. Steel, adapted from the industry, solved many design problems in the 1920's; the material was more durable and easier to shape than wood, it was hygienic and more economic in production. Still, several decades passed before the material was fully accepted as a replacement for wood in furniture. We will probably have to assume that every process of change takes time to develop.

Marcel Breuer is one of the greatest pioneers in design development. He is perhaps most renowned for his steel furniture, but... he took the path via textiles in his development. His chair Latten is a precursor to all his steel and textile chairs. Latten has a frame of wooden laths, while the back and seat of the chair is entirely made out of textiles, i.e. works as a bearing part of the construction while comfortable and decorative to the user. Latten was a prototype while developing something else and in Wassily and other chairs by Breuer his idea is clearly visible: to find modernistic simplification using textile elements (Picture 1). In a series of pictures Breuer leads the way from richly decorated and stuffed furniture toward seating furniture with more rational forms and less material usage. He stated his vision of future seating furniture as an "elastic pillar of air" to recline on, as if he wanted to continue reducing the amount of material used long before the environmental debate became heated and without being able to stretch himself further than to using wood and steel for the frame and textiles as supports in the seat and back of the chair. However, he knew the seating furniture of the future would have an entirely different character. In order to gain the means to change this character, one must wait for the future to happen.



1 Swedish made chair inspired by Marcel Breuer in the 30s.
Photo Formens Hus

Textiles for Furniture vs Textiles as Furniture

With few exceptions textiles have been used in a relatively conventional way in seating furniture design. The uses of the textile surface are limited to decoration and comfort; an interface between the sitting person and what we regard as the chair. Furthermore, textiles enter the design process rather late, when most decisions are already made. If the unique characteristics of the textile would be present in the design process from the very beginning the product would be given an entirely different shape and perhaps even completely new functions.

Marcel Breuer was one of the first designers who let textiles become an integrated part of the piece of furniture and a fundamental condition for the appearance and function of the object. History also provides additional examples. In the 1930's, Bruno Mathsson created his series of reclining chairs in plaited webbing (picture 2). In those days it was innovative – even provocative – to “promote” webbing, a material that had earlier been one of many hidden layers in the stuffing of seating furniture. The textile webbing was given a value of its own and saved additional material, thus becoming one of the foremost milestones in design history. A decade later the well-known bat armchair “Hardoy chair” (picture 3) by Ferrari-Hardoy et. al. was constructed on a principle going back to the middle of the 19th century and the Fenby Tripolina (picture 4) chair patent by Joseph Fenby, that also had an all-textile “sitting shell”, mounted on a collapsible frame of wood with hinges. Once again a reduction in material use, where in the original model the textile also made possible the collapsible function. During the 1960's sitting habits changed; the youthful ideals left the high sitting behind and Sacco (picture 5) became one of the more noticeable examples. Once again it was the textile that allowed the shift in the shape and use of seating furniture, as in other examples we have seen it is the textile use that brings about the change in furniture character, function, and use. This has occurred when one has treated textiles as furniture instead of merely viewing them as applications for furniture.

Breuer's future is our present; we have visions or vague ideas about our own. Design development has touched Breuer's idea about an elastic pillar of air in the inflatable armchairs that have been available now and then since the 1960's. After years in the postmodernistic spirit, where objects often worked as controversial replies to the rational language of forms of modernism, one may discern that we will soon see a “paradigm shift” concerning the shape, function, and materials of seating furniture and that textiles are once again in focus. One example of this is Danish designer Louise Campbell's sculptural armchair Retreat Funnel, a form that finds a sovereign identity in its time. Campbell has chosen to make the entire piece of furniture out of yarn (angora); the expression is all together textile, despite the steel that was needed to make it carry weight. As a symbol, however, Retreat Funnel (picture 6) may be seen as one of the milestones where textiles once again point the way toward the future.



2 Bruno Mathsson – Eva, 1934



3 Hardoy chair, Ferrari-Hardoy.
Photo Formens Hus



4 Tripolina, Joseph Fenby.



5 Gatto, Paolino, Teodoro – Sacco, 1968/69



6 Louise Campbell – Retreat Funnel, 1998

Smart uses for textiles and Smart Textiles

Countless is the number of chairs in this world and one may think to oneself: Do we need to design another chair? There are some doubts as to that – in the perspective of global society – but we know that to the individual furniture manufacturer carrying on development is essential to survive the competition. As stated by furniture manufacturer Johan Lindau, Blå Station: We need not to create another piece of seating furniture if it does not bring something new and provide an additional value. This seen in the light of the conditions of the manufacturer and the demands of the consumer, which must be carried out with respect to the current needs and demands of society, especially the needs for a sustainable development. Also, to provide support in time and culture for design and object and to promote the desire for innovation, creativity, and development. The textile field is a field where innovations take place at an explosive rate today; materials gain new characteristics and become bearers of new technology. The textile field could thus be the field that holds the most promising opportunities to lead design and product development, e.g. of seating furniture, into a new era.

Being smart in textiles means leaving behind conventional ideas about what a piece of seating furniture should be like and what relation textiles have to sitting. One example of this is the chair Ram (translated as frame), designed by the Stockholm bureau No Picnic for Felicerossi, Italy. The idea behind Ram (picture 7) is to “frame” the sitting person. The frame is made of steel, covered with an elastic fabric that serves as “background”. Hidden behind the textile are a seat and a support for one's back. In this case a “common” textile has been used in an innovative form. The textile in itself may also carry innovations, either regarding the material as such or through new manufacturing processes. Danish designer Boris Berlin, Komplot Design, has designed Nobody for Hay. The chair is manufactured in Sweden by Nordifa, a company working with needled felt technique, in very different product areas. Through mixing meltable fibers with the felt the textile material can be moulded into shape.



7 No Picnic – RAM, 2005

In Nobody (picture 8), Berlin has created a metaphorical image of a cover while leaving out “the chair itself”; the textile is the only material and is the bearing material. Research is also conducted into material development and manufacturing. In Japan Tokujin Yoshioka has “baked” a chair in polyester fiber. It bears the name Pane (picture 9) (after the Italian word for bread) and the air bubble structure calls into mind white bread; we are closing in on the elastic pillar of air. Tokujin says that the light quality of the textile may represent strength in the future; fibers possess

a high capacity for absorbing energy, they endure weight without being compact, they are airy and not hard. Tokujin aspires to create forms and expressions which are entirely new and that may serve humanity in the future, perhaps as a way of encountering a feeling of the unexpected. Difficulties in the process carry a value in themselves, he claims. Prior to experimenting with a new idea in materials and technology he does not know where it will lead him; sometimes the shape and object turns up without him even noticing it.



8 Nobody, Boris Berlin, 2007



9 Tokujin Yoshioka – Pane, 2006

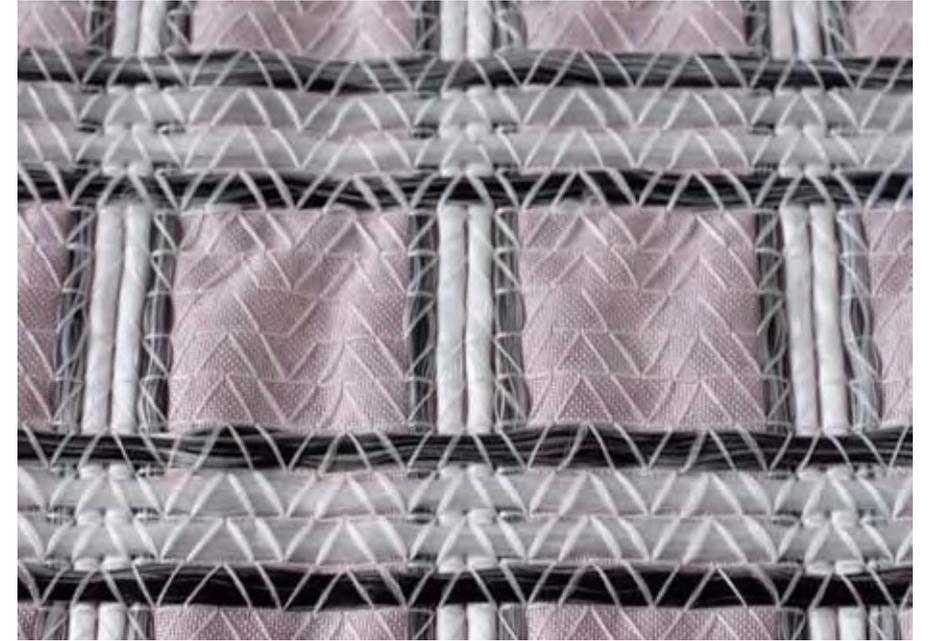
Several of the textile innovations are under continued development, some have not yet found their applications. The needled felt (picture 10) has cleared it's way in interior decoration, but there are other textiles that may come to follow. In the Smart Textiles field there are e.g. conductive fibers that conduct heat or sends signals, space fabric (picture 11) that may come to substitute stuffing, textiles mixed with glass fiber (picture 12 & 13) that when heated will consolidate and become bearing. New exciting manufacturing techniques are found in e.g. knitting, where the University College of Borås has machines from Stoll that knit in inelastic rigid materials such as metal (picture 14), in three-dimensional structures, or creates channels while knitting, thus saving the need for sewing and as a result reduces the loss of materials. The company Oxeon has a unique solution for weaving ribbons in carbon fiber (picture 15). The technique may also be used to weave other materials and a method to weave carbon fiber in three-dimensional shapes has been developed. All these companies and innovations are connected to the Smart Textiles project and the Swedish School of Textiles.



10 Non woven Nordifa Photo Jan Berg



11 Space fabric, Photo Jan Berg



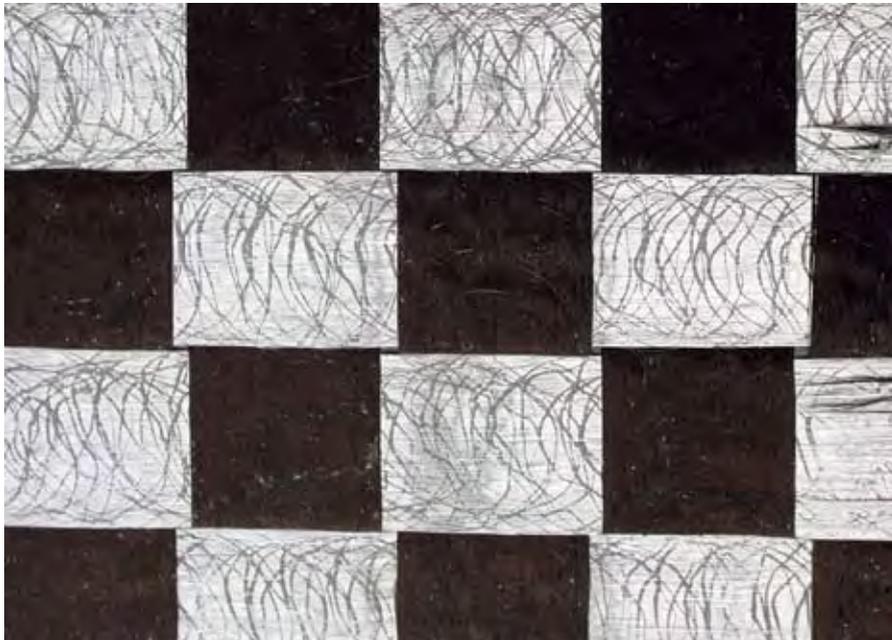
12 Textile with glasfibre , Sicomp. Photo Jan Berg



13 Consolidated glasfibre, Sicomp. Photo Jan Berg



14 Knitted metal, Textilhögskolan. Photo Jan Berg



15 Carbon fibre, Oxeon. Photo Jan Berg

When the venture Textile Evolution, an exhibition touring Sweden this year showing some of the latest results in textile research, proved a success, the Swedish School of Textiles together with Borås Textile Museum initiated the Textibel project. Johan Hult, ex-professor at the Swedish School of Textiles and furniture designer, together with Lars Eriksson, Swedish School of Textiles, and Rolf Danielsson, the Museum in Textile History, saw an opportunity to develop a new generation of seating furniture based on the unique characteristics of textiles. Textibel is a follow-up from Textile Evolution but as a project it is more extensive as it is a complete venture that entails not only product development but also presentations of the objects and the process along with the material. Textibel is also a protected trademark for a new product type, a nuance of traditional seating furniture, i.e. Textiles as Furniture.

Textibel

Textibel catches the trend in seating furniture design and the development taking place in textiles. Textibel develops the meaning of the term textile – aiming at the seating furniture of the future. Questions asked in the process are:
- How does seating furniture develop through textile innovations? – How are innovative seating furniture developed through textiles?

The platform for development is Borås and the Sjuhärad region with the Swedish School of Textiles and Borås Textile Museum. Thus is gained the best possible access to textile competence and development of textile materials along with a platform for exhibition and information. Development is carried out through a university college course consisting of a series of workshops in collaboration with Chalmers University of Technology, Technical Design Engineering, and the School of Design and Crafts at Göteborg University. About 30 people from all over southern Sweden participate in the course where furniture companies, textile companies, designers, and researchers in textiles and composites are all represented along with students from the three University College Schools. The strong point of the development lies in the depth and broadness of the competence represented through University Colleges, the business community, research, culture. As Anders Englund at Offecct said: - If we small companies are to lead the development, initially we will need to do it together.

The results will be presented at an exhibition that opens on May 17th 2008 and that is produced by Borås Textile Museum. By then the first part of Textibel's goal will be fulfilled. Remaining to be completed is the education and information on product development through textiles in connection to the exhibition as it tours Sweden. Later on, it will be adapted for touring abroad.

The project is coordinated from the Museum in Textile History supported by the Förenings sparbanken Sjuhärad Foundation, Sjuhärads Kommunalförbund and Stiftelsen Svensk Textilforskning that has textiles as one of its priority areas.



Workshop,
The Swedish School of Textiles 2007.
Foto: Magnus Bratt