

# Soft Surfaces Versus Product Innovation. Textile and Local Know-How



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## Short Communication

### Scope of survey

The contribution deals with the relationship between product design and innovation leveraging on the added value of the design to the product.

The concept of innovation is here understood not only to produce tout court a new artifact, but also to implement strategies aimed at enhancing the skills and processes already present in the company, which, by means of simple changes in sense or applications can make products unexpectedly innovative. In our region, Apulia, we have a system of firms among the most numerous in southern Italy but, at the same time, with low awareness of the value coming from the support of the design, which can incisively improve strategies and products. Innovation can be realized through recognition of own potentials and a different use of their own competence and technologies already

in use at the firm within their territory.

### Materials and multisensoriality

The theme of product innovation develops along the surface design research, which the authors are carrying since

several years specifically on soft surfaces, including textiles, their production, processing and contamination with rigid or semirigid materials.

The design of surfaces is, among the search themes of contemporary design, most interactive with researches on multisensoriality, new material design and innovative use of existing materials. The expressive and sensorial dimension of design in relation to materials should be intended as material experience representing the research forefront of the last decade [1].



**Figure 1:** Emotional feel of soft surfaces.

The sensorial and expressive dimension of the material is aimed at stimulating the perception and activation of the emotional feel of the artifacts [2], their affordance in the relation to the users, the capacity of invitation to their use. Such feature increases when the material studied is thought to produce artifacts which, enveloping the body, require an increment of

contact performance as means of softness ductility, elasticity, proper of soft surfaces and of textiles in general (Figure 1).

### Which innovation?

As noted at the opening, the research on material design is not finalized at finding new and unknown materials, never

used before in industrial design, but can also be oriented at known and common materials needing a new definition of their communicative and expressive baggage.

For innovation, in the field of the relationship between material and design, we mean not only the design of new materials [3], but also the modification of paradigms of use of pre-existing materials capable of changing the meaning of their

use and application [4].

A material is innovative during its phase of elaboration (nanomaterials, nanocomposites, etc.) or, after its conception, along its phase of application. As such is innovative a technological transfer regards the use of material or technology where it has never been used before or combined with other materials in order to obtain composite or hybrid structures (Figure 2).



**Figure 2:** Combination and application of materials.

### Enhancement of perceptive and sensorial qualities of textiles

The opportunity of product innovation through design strategies is offered with a comparison of the authors with an apulian firm, Mafrat, leader in infant clothing manufacture. Their specific contribution results from a ample research on soft surfaces focusing on an enhancement the perceptive and sensorial qualities of infant fabrics paying attention to the experimentation as the famous artist and designer Bruno Munari has led to the tactile strengthening of the surfaces for the childhood [5].

It aims at developing a set of different processing to improve the tactile and sensorial features by mere action of folding, tassellation, padding sewing and countersewing, cutting, stratification, punching etc. preliminary to finished products.

Such actions through the fabric thickening define a tridimensional structure of the surfaces. Such development of the textile row materials is a result of the Mafrat philosophy, very careful about their products quality. Their interpretation of innovation does not belong to the concept of a new product but rather to an enhancement of the emotional value coming from the multisensorial growth of the materials used (Figure 3).



**Figure 3:** Enhancement of perceptive and sensorial qualities on textiles.

### Surfaces design and processing

The research lingers on folding and sewing processes, which, in their inherent simplicity have resulted as the most suitable for the tridimensional improvement of the surfaces. As a matter of fact changing their softness, roughness, transparency, elasticity and ductility parameters the fabrics have improved their perception and sensoriality.

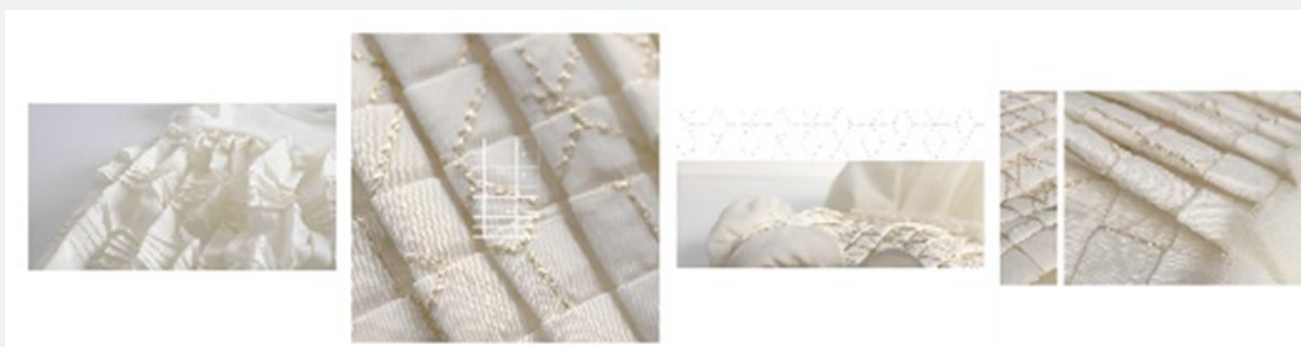
In particular the theme of folding entails technical and morphological implications due its thickening and surface ramming. The aim is to search on the relationship between the formal and perceptive potentiality coming from such ramming. In our research, we identify the most effective morphologies of the folds tassellation for each of the selected product line [6].

The theme of sewing is studied as a needed mean to hold the folds within the expected rhythms and shapes. The aim is to

foreshadow an unexpected use of this technique via a material contamination and a stepwise modification of two compositional conditions: the way hems merge and the material are used. In fact sewing implies the introduction of new material, the thread, with its never ending materic, typological, dimensional variants which adds to those countless of the soft surfaces planned. The purpose is to push the relation between these two conditions, through the alternate prevalence of one over the other, to the limits of their formal and procedural possibilities. The succession of seams, composed differently, allow to obtain surfaces that modify their thickness based on the way of coupling the parts

of the given material, in its different degrees of softness to be tranformed in tactfully ruffled surfaces. Depending on the type of union it is possible to obtain significant changes of the surface thickness, refined by their tactile features. By the same token we highlight the surfaces vitalizing value obtained through the use of threads of different grain and thickness.

In this way, there are ordered variations of surfaces capable of recovering aspects of the theories of decorative art in the contemporaneity that defined the origins of Basic design between nineteenth and twentieth centuries [7] (Figure 4).



**Figure 4:** Improving sensoriaty by folding and sewing.

### Product innovation, prototyping and relationship with the territory

If we grant that the manual and handicraft work involves costs often outside the market logic, it is not negligible the added value that the product identity has in a globalized market for its aspects of tradition and memory proper of any manual work and especially in the textile as a place par excellence of planar communication [8].

Since few years a debate has opened up involving economists, sociologists [9], and designers aimed at a way out of Italian crisis. The debate is centered on the potential of knowing how to act (know-how) unanimously recognized as a socio-economic characteristic, a heritage that few countries have managed to preserve. The know how of Made in Italy is considered the basis of the flexibility and dynamism of our manufacturing reality [10].

Within this how to do a lot of the most delicate processes are still performed in artisanal and/or manual processes. It's the way to the Future craftsman, as the last specific segment of know how and is one of the most innovative answers launched by several italian economists. They see "an essential ingredient of quality and innovation" a way of "declining to the future an inheritance that deserves to be proposed on an international scale that goes beyond the boundaries of the economy and forces us to reflect on what we should understand for creativity and meritocracy" (Micelli, p.9). There is no nostalgia for a time that was, but the will to project such competences in a new economical and global dimension:" The craftsman work is one of the few aspects for which our country continues to represent a unique destination

for companies, young design talents, stilists, artists from all over the world. It's one of the few cards we can play to find an original collocation on the international scene" (Micelli p.11). The main sector for the revaluation of the know how is located above all in the prototyping processes capable of containing in itself the language of matter no virtual design can ever replace.

This is already an important sector for the innovation of segments of the productive process. In the prototyping phase the skills of the apulian know-how could be expressed without necessarily dealing with finished products and could export long the products the technical and non-imitable skills of the handmade work with its contaminations of industrial processes. Italy is becomming obliged destination for many of those creatives coming from all over the world to learn the techniques of crafts to approach the manufacturing culture of our country and absorb the taste of tradition" (Micelli, p.11).

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