Changing the change proceedings

Edited by
Carla Cipolla
Pier Paolo Peruccio

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Changing the Change
Design, Visions, Proposals and Tools
Proceedings

Edited by Carla Cipolla (Politecnico di Milano), Pier Paolo Peruccio (Politecnico di Torino)

International Conference
Thursday 10, Friday 11 and Saturday 12 July 2008
Turin, Italy

In the framework of
WORLD DESIGN CAPITAL TORINO 2008 | © ICSID An Icsid initiative of the IDA

Organizers:
Politecnico di Milano and Politecnico di Torino

Promoters:
CDD - Coordination of Italian Design Research Doctorates
CPD - Conference of Italian Design Faculty Deans and Programme Heads

Endorsements:
ICOGRADA - The International Council of Graphic Design Associations
DRS - Design Research Society
CUMULUS - Cumulus International Association of Universities and Colleges of Art, Design and Media
BEDA - The Bureau of European Design Associations
IFI - The International Federation of Interior Architects/ Designers

ISBN 978-88-422-1670-4
9 788842 216704

The Conference

Something that we know very well about the present is that the world is changing, rapidly and profoundly. The only certain thing that we know about the future is that the current change must change direction. It must find the way to sustainability.

Nobody is yet in a position to say how this can happen. However, many think that the greatest challenge we must face is this one: how to be an active, constructive part of this twofold transformation; and how to be able to interpret the way and the extent to which we are changing, recognising the opportunities that are opening up, and the forces that generate this change. We should learn to use these same forces to "change the change" and promote a social learning process that can lead us towards a society based on networking, knowledge and sustainability.

Contemporary design (seen as the community of all who operate in the design field in different ways) is deep in this turbulent process, both transforming it and being transformed by it. Given its nature it cannot but be like this. However, in this turbulence, we do not have, and cannot have, a clear vision of what is happening. What is design doing today? What could it be like in future and how will it operate in this context of ongoing transformation? What is it doing, or what could it be doing, to play a more incisive critical and constructive role in the great twofold transformation underway?

These are not new questions, but they must constantly be asked. Not only because the world is rapidly changing, but also because despite the good intentions of many, design still continues to be far more "part of the problem" than "part of the solution"; serving more to accelerate unsustainable processes rather than promoting new ways of being and doing to help individuals and communities live better, reduce their ecological footprint and regenerate the social fabric.

Aims

The Conference moves from these considerations and intends to present visions, proposals and tools that emerge from precise design research activities. If indeed design wants to be "part of the solution" it must, perhaps first and foremost, develop a new research culture and new research practices: an open research, sensitive to present contexts, that leads to a better understanding of the great changes underway and of what should be done to re-orient them towards sustainability.

In this spirit the Conference seeks to be a confrontation and discussion ground for designers and researchers operating in different cultural, economic and political contexts (in this perspective, a substantial participation from the East and South of the World has been actively encouraged).

Changing the Change is a design research conference with a strong and ambitious political goal: to focus on the design research potentialities in the transition towards a sustainable knowledge society; to show that these potentialities exist and can be found in all the design application fields (from products to communication, from interiors to services, from ITC to crafts, from medical devices to fashion) and in all the regions of the world (from the most mature industrial societies to the emerging ones). To do all that, the Conference will present and discuss visions, proposals and tools developed by design researchers dealing with various aspects of peoples lives: from food, to health, from residence to mobility, from work to tourism.

Ezio Manzini
Politecnico di Milano, Conference scientific coordinator

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Changing the change
DESIGN VISIONS PROPOSALS AND TOOLS

Textile Traditions and Fashion Design

New Experiential Paths

Giovanni Maria Conti[1], Federica Vacca[2]

Abstract

The approach to fashion design and system build around it must be faced in cross-sectional way; to work on fashion doesn't mean develop a dresses collection but it refers to the analysis of design processes that generate the project intention.

The paper focuses on the territorial dimension of the project, which is meant to be a resource for the development and support of local economies, helping them to increase the value of their cultural identity and their design process as well as production's know how.

Considering such observations, we can identify a new trend aiming to recover settled in time values, through the strong relationship that connects an individual to a community and manual arts to history and local identity.

[1] Giovanni Maria Conti, Politecnico di Milano (ITALY) - INDACO department. PhD Graduate in Industrial Design and Multimedia Communication, giovanni.conti@polimi.it
[2] Federica Vacca, Politecnico di Milano (ITALY) - INDACO department. PhD Student in Industrial Design and Multimedia Communication, federica.vacca@polimi.it

1. Introduction[3]

The approach to fashion design and system build around it must be faced in cross-sectional way; to work on fashion doesn't mean develop a dresses collection but it refers to the analysis of design processes that generate the project intention.

The research focuses on the territorial dimension of the project, which is meant to be a resource for the development and support of local economies, helping them to increase the value of their cultural identity and their design process as well as production's know how. While places and people are closely entwined and where modernity is liquid, the idea of an identity linked to "*what tradition is able to produce*" has a higher meaning, thanks to its relation to local culture, memory and spirit. The so called *Genius Loci*, i.e. what survives the unceasing changes of time, gives to the territory an indelible character and therefore makes it part of a unique and characteristic experience.

We are currently seeing the return and a new discovery of traditional techniques and manufacturing, which have re-appeared in the contemporary world with a new look and a new balance. The set of traditions, meant as material culture, can be identified with the craft manufacture, which becomes the founding element of a community's identity. As it is subject to changes in time, the set has to be interpreted as a variable heritage which should be preserved.

In some cases, the typical local "know how" has slowly been taken over by the industrial production system, which has been able to combine the craft's quality with the most advanced production techniques. This is the case of Italian industrial districts, which historically rise from a set of inherited skills concentrated on a specific territory, and are a perfect expression of an aggregative model of the most edgy Italy. Up to recent times, handicraft has been identified as something hostile to modernity, due to its dislike for standardization. Nowadays instead, it represents a model for the post-industrial production, thanks to its unique characters, its intolerance to "similarities among all products" and its exaltation of the product's personalization.

Considering such observations, we can identify a new trend aiming to recover settled in time values, through the strong relationship that connects an individual to a community and manual arts to history and local identity. The nostalgic memory of the past spreads out, together with the desire to recover objects and memories which belong to the past. If in historical evolution of Design we assist, at first time, to research and experimentation for the realization of an object, and then to research and technical evolution of the product, today we can assert of be observer and responsible in a phase of " Design Experience" where there's the new and innovative concept of design for customer. The new tendency of Design research try to emphasize all the elements that it's necessary to communicate.

Fashion and design, with Art, represent the expression of a society wish, able to understand the changes, rejecting, to the same identity need, the Zeitgeist in a precise historical moment. Continuing technological research, permanent experimentation and discovery of new declination of Design make Design able to become communicators of emotions. Today the object of market and consumption is not only the simple possession of a specific product but it is the experience, as enrichment of the subject, that the customer can live inside new worlds, according to values of the brand that create add value to the existence.

[3] By Federica Vacca, Politecnico di Milano (ITALY) - INDACO department.

2. Situation of the Italian Textile System[4]

"The fascination of hand-crafted objects derives from an object having passed through the hands of someone, the marks of whose labour are still inscribed upon its surface; we are intrigued by what has been created; it is unique, because that moment of creation cannot be reproduced" (Baudrillard 1968)

In recent years, the Italian Textile/Fashion industry has been facing a crisis. This is due to market globalization and to delocalization processes, which shift production to countries where labor cost is lower. In turn, this makes it necessary for companies to rethink their creative, productive and distribution activities.

The Italian textile sector, with its historical traditions, is characterized by a system of small-medium independent businesses, highly specialized in different stages of the same production process. Italian companies were able to introduce into the market a remarkable variety of products with innovative design and technical content. Moreover, the particular attention placed on style and aesthetics has been the key to the success of *Made in Italy*.

This particular business organization model, i.e. the *industrial district*[5], is a local system strongly based on one, primary production activity. In order to increase production, the companies belonging to this system tend to develop synergies.

The industrial district model has two strong points. The first is its tight connection to the territory it belongs to, based not only on shared technical/productive know-how, but also on a common entrepreneurial culture and shared values. The second is its systemic approach in developing connections between companies working within the same production chain. Such systemic approach improves the district's overall efficiency according to the *flexible specialization* model, that is, the system's ability to react to internal and external changes. For instance, we can talk of "product flexibility" when companies produce a new product or radically change their product, or we can talk of "process flexibility" when companies are able to modify the production processes employed for the realization of their product.

Thus, Italian textile industry is characterized by a high fragmentation of the production chain among different companies. Virtually all of them are small or very small companies specialized in different stages of the textile-fiber and yarn manufacturing. They are unable to compete on the market with bigger companies that can delocalize their production in more competitive and remote countries. The progressive loss of the district's expertise and specialized personnel can be an important consequence of this mechanism. In addition, its productive know-how could be transferred to emerging countries, which would become even more dangerous competitors.

Due to their difficult market situation, companies need to find new strategies and new products, as well as achieving better quality, flexibility and product personalization. This is how they will be able to enhance the value of their specific production.

The crisis of the textile sector is to be faced with a well-defined entrepreneurial policy; priority must be given to continuing research and product innovation, as these are crucial steps towards the reconfiguration of the textile/ fashion system within today's overstocked market.

[4] By Federica Vacca, Politecnico di Milano (ITALY) - INDACO department.

[5] In Italy the status of *"industrial district*" has been acknowledged by Law 317, 1991 (Interventions for the innovation and development of small businesses). According to this law, districts are local areas characterized by a high concentration of small businesses, and by the productive specialization of all the activities involved.

3. The recovery of tradition[6]

Today there is a renewed interest in traditional techniques and productions, which return to the contemporary world with a new aspect and new functions.

From the etymological point of view, tradition is "*the transmission of past generations' cultural heritage (i.e., laws, habits, memories, historical facts, etc.) by means of written documents or verbal communication".* It can also be defined as *"cultural content transmitted by past generations that can contribute to the preservation of identity*"[7].

The cluster of traditions intended as *material culture* is identifiable with crafts production. This kind of production, therefore, becomes a founding element of the identity of a community. As it changes throughout time, it can be defined as variable heritage that must be preserved.

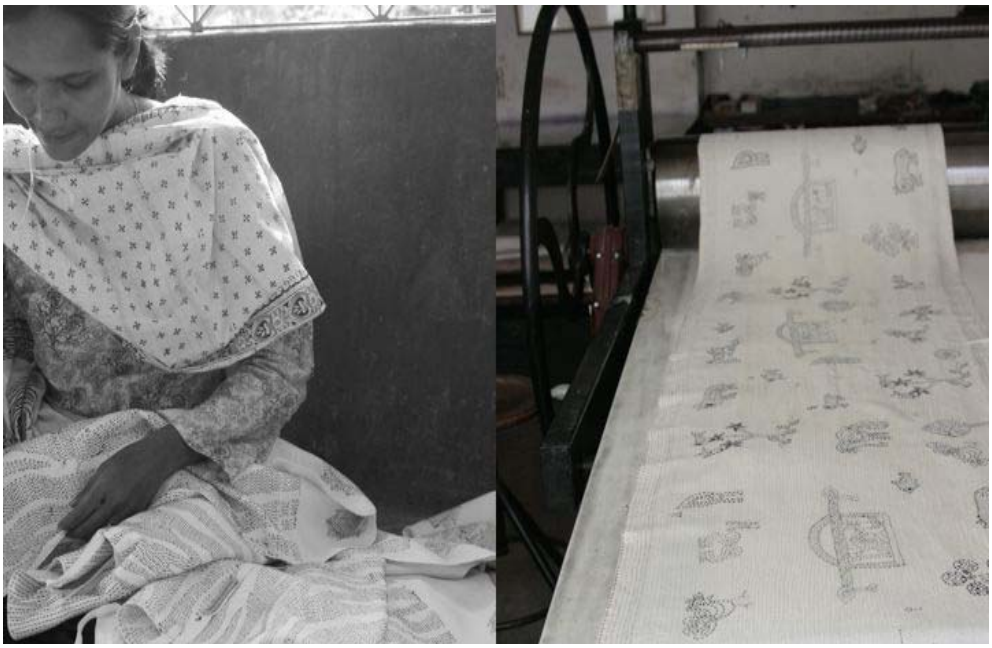


Fig. 1: Craftswomen at work on the Yooj collection.

In some cases, local *know-how* has been absorbed by industrial production, by combining crafts quality with the most advanced industrial systems. This is the case for industrial districts. Historically, they originate from a locally-concentrated heritage of skills, and represent today a successful aggregation model within Italy's most advanced region.

In the recent past, due to its open rejection of standardization, crafts activities were viewed as hostile to modernity. Today, on the contrary, craftsmanship has become a model for post-industrial production thanks to its unique character and personalized production, which rejects today's "everything is the same" mentality. Crafts help defining the cultural identity of production through their ties to culture, memory and tradition, and by doing so, they potentially become an element of innovation.

While cultural elements are often neglected by the industrial production system, they hold a crucial role in local crafts productions. Indeed, the value of the product depends less on its material quality than on the symbolic, emotional and identification meaning that consumers see in it. Therefore, craftsmanship in all its forms can be seen as "memory of habits" and "*transmission*

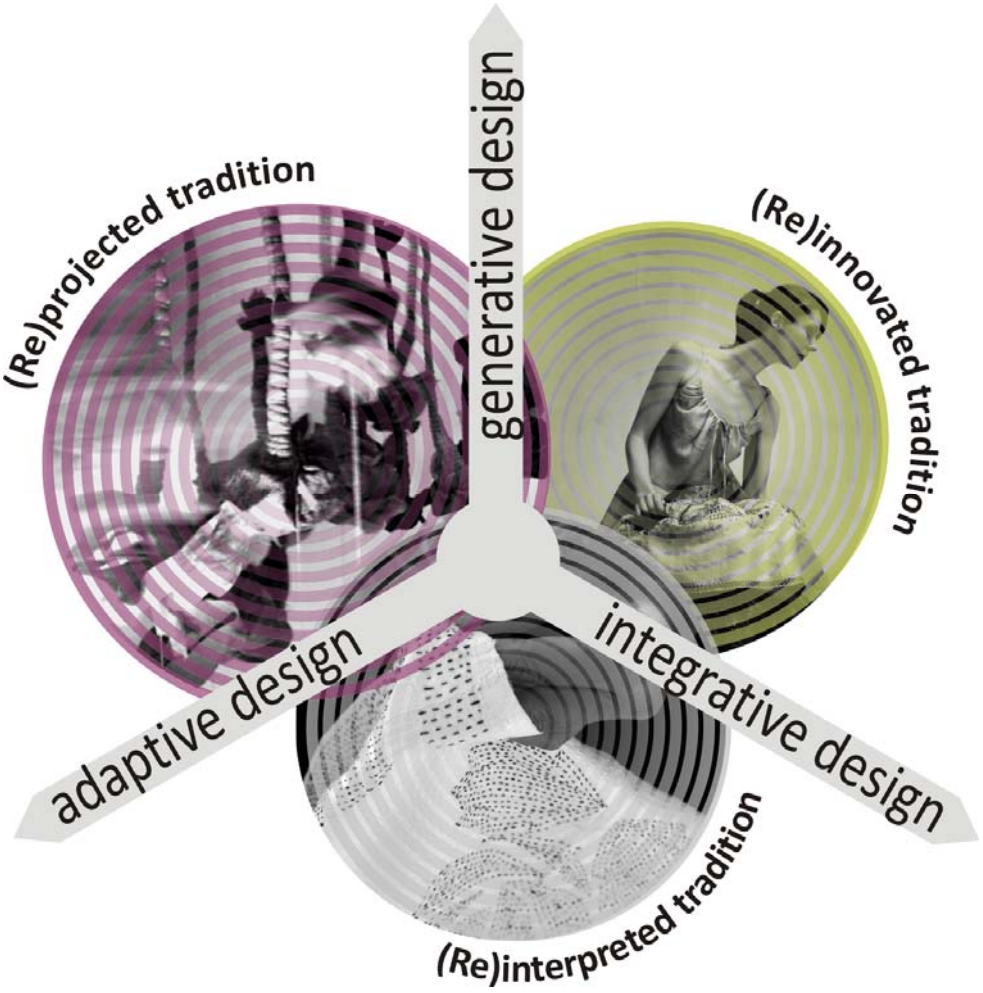
[6] By Federica Vacca, Politecnico di Milano (ITALY) - INDACO department.
[7] Definition from "Il Grande Dizionario Garzanti di Italiano", updated edition, 2007.

of meanings". It embodies the complexity and variety of a dimension which, when unable to transform itself, tends to inevitably disappear. The preservation of identity as a positive inheritance of crafts culture, as well as the transformation of planning and productive processes, means the creation of new languages that re-interpret crafts techniques with a contemporary taste, and avoid the passive reproduction of style and form. In other words, this process no longer produces traditional goods, but it produces value.

For manual arts in the textile sector, the relationship between tradition and modernity is crucial. We can talk of product innovation when a product is perceived as "new" by the market due to the way it looks, its characteristics, performance or meaning. On the other hand, we can talk "process innovation" when its aim is to cut costs, and add value to traditional processes connected to local identities, and to be more sustainable, flexible and fast in answering market needs. The analysis of planning and production processes leads to the identifications of different actions that can be performed in order to innovate the textile sector and recover local know-how by focusing on the development of high added-value market niches.

In terms of process, there are three possible interventions that can be performed:

- **adaptive** actions, that is, the adaptation of external know-how. Production is given a new meaning through the transformation of existing processes.
- **integrative** actions, that is, the integration of pre-existing know-how belonging to different sectors of production.
- **generative** actions, which tend to develop new know-how and competences.



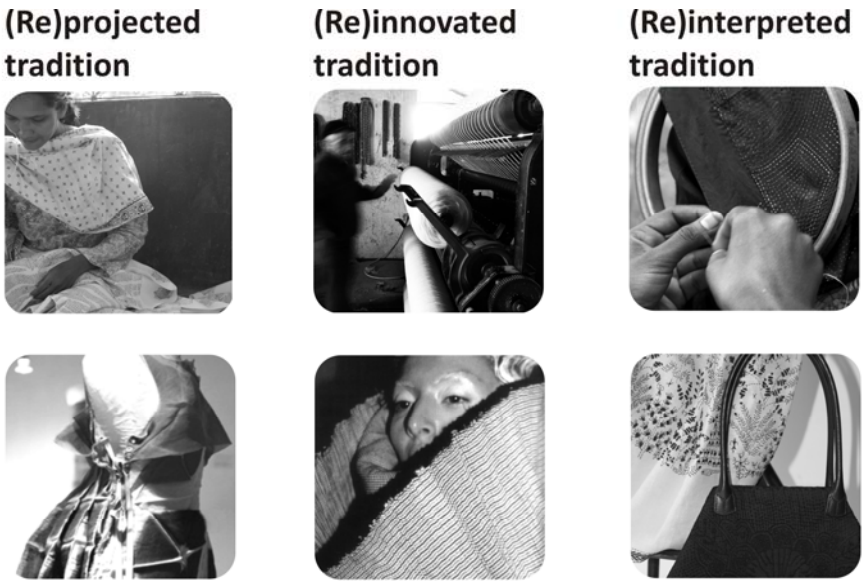


Fig. 2: Combination of interventions in terms of processes, as interpreted by the author.

Possible kinds of innovation connected to the *material culture* of craftsmanship can be obtained with a combination of these actions:

_**(Re)projected tradition:** production processes and textile techniques – from spinning to dye- are de-contextualized and transferred from the place of origin to new contexts with new codes. This is an *adaptive*/*generative* action because, on the one hand, existing crafts techniques are *adapted* to different needs, re-projected and removed from their original context; on the other hand, this transforming action can also *generate* new languages and new meanings according to market needs. As a consequence of this action, the original identity of the process is inevitably lost. The cluster of traditions and memories that informed the process identity are dissolved. Indeed, the process is no longer performed by expert craftsmen that inherited the know-how from past generations, but it is performed by new craftsmen who learned these techniques and re-interpreted them by revisiting their concept and meaning. If techniques with specific identities are passively reproduced, the importance and meaning of crafts tradition is at risk. On the other hand, this action can provide new, vital energy to techniques that would otherwise be lost due to the sector crisis, by combining them with new and more market-oriented know-how.

_**(Re)interpreted tradition:** manual traditions are recovered by partially removing them from their context. While the productive know-how continues to have its roots in the local territory, the planning process is performed beforehand by an external figure that projects the local know-how towards new results and different markets. This is an *adaptive*/*integrative* action because, on the one hand, it *adapts* handicraft productions to planning strategies different from those that traditionally belonged to the territory, thus producing innovation. On the other hand, it also *integrates* the know-how connected to these different planning strategies. In this case, techniques do not lose their identity; rather, the final product is improved by the addition of new meaning belonging to different contexts. If not supported by strong planning strategies, these techniques and the cultural heritage they come from are at risk of becoming copies of themselves. This approach is strongly oriented to the quality of the final product, which must be improved in its aesthetical form and in the codes and meanings it conveys.

_**(Re)innovated tradition:** traditional processes remain strongly tied to their original territory, therefore become an innovation tool for local communities. This is an *integrative*/*generative* action because, on the one hand, it *integrates* different processes which, in turn, generate a new process, with renovated projects and products. On the other hand, it

generates a new language that adds value to the final product. It is crucial to define a specific strategy that can combine memory and innovation according to new codes of expression. At the same time, it is important to activate processes and cultural changes that can produce innovation and development, and that have positive consequences for the local territory. Indeed, the greatest advantage of this action is precisely the involvement of local communities with shared identity. This action is highly process-oriented; that is, the process is the starting point to obtain an innovative product, both in its material aspect, improved by a specific planning, and in its immaterial aspect by adding new languages and meaning.

4. Emotional&Experience design. Designing objects or designing values?[8]

"*User's Experience is a specific reflection tool for many disciplines and activities connected to entertainment, consumption and design*"[9].

In the last few years, some aspects of consumption and entertainment have changed into dimensions where "*subject-consumers are surrounded by fluxes and inputs that make them experience something*"[10]. The continuing technological research, the constant experimentation and the discover of new dimensions for Design, lead Design itself to convey emotions.

The object of consumption is no longer identified with the mere possession of a given product; rather, the object of consumption is the *experience*, meant as the self-enhancement that the subject-user can experiment within new environments. These dimensions are coherent with the brand values and experience of a certain brand, created to add vital elements to existence.

"*Emotions modify the way in which human mind solves problems*", claims Donald A. Norman in his book *Emotional Design*[11]. "*The emotional system modifies the operative modes of the cognitive system*". Emotions are defined as vibrations that slip into the body and provoke curiosity, which, in turn, facilitates learning.

"*Emotions are the organism's answer to a change within us or outside us. They arise when something is not like it used to be a moment before, thus modifying the subject's status and provoking a feeling of uneasiness (negative emotion), or a feeling of well-being (positive emotion). Emotions arise from changes, and each change entails movements; in this case, inner movements that are then expressed outward. […]*"[12].

Emotion is therefore traced back to memory. In fact, emotion is not merely a factor influencing mystic functions, but emotion itself becomes a kind of memory. Senses are the starting point for the formation of emotions; external inputs reach the brain, which in turn responds to complex interactions. The brain's answers can be physical reactions, such as the increased heartbeat and perspiration, or behavioural reactions such as fear, rejection, joy. Emotions make us act and react according to the inputs received. Emotions interact with other systems within the organism, such as the cognitive system, the immune system and the perceptive system.

In time, the emotional component gained a very important role, especially for consumption activities. The sensorial approach has been universalized. Shops have become the place of cultural suggestion, while the *open museum* combines products sale with art, cinema and theatre. The new concept of *Experience shopping* defines an experience lived by consumers through the definition of 5 mental macro-areas: thought, feelings, action, relationship, sense. Recent studies analysing the relationship between men and the environment underline that space is not neutral

[8] By Giovanni Maria Conti, Politecnico di Milano (ITALY) - INDACO department.
[9] Simeone L., *EXPERIENCE DESIGN*, "AVATAR" n°2, November 2001, p. 37
[10] Simeone L., p. 38
[11] Donald A. Norman, *Emotional Design.* Apogeo, New York, 2004
[12] S. Giambelli

but generates mental states. In other words, different ways of organizing space have a specific effect upon our nervous system. This new paradigm provokes new experiences and interdisciplinary encounters, like between architecture and medicine, or between fashion and crafts.

5. Emotional experience[13]

"*Design will help people to live better lives by offering an emotional and functional sense to their experience. Design will help marketing companies in planning an innovative future. […]*"[14]

Pleasant objects contribute to a sense of psychological well-being, because in stressful situations our mind tends to move on to the idea of the problem. Our brain is sensitive to certain situations and reacts in a positive or negative way. Senses contribute to the brain's elaboration of emotional states. The holistic attention to sense stimulation is today one of the most interesting approaches to design. Senses as a stimulus for memory; memory as the re-discovery of inner values; senses and memory as the essence of emotions.

Emotions reflect experiences, associations and personal memories. In their book *The meaning of Things*[15], Mihaly Csikszentmihalyi and Eugene Rochberg Halton interviewed a number of people in their homes, hoping to grasp their relation with the objects that surrounded them. In particular, they asked each interviewee to show them objects they considered special. It emerged that such special objects were objects connected to particular memories or associations. In other words, "special" were those objects that evoked a special feeling in their owner, and that brought to mind stories from the past. Rarely did interviewees attribute value to the object in itself.

We tend to feel close to object if they bear meaningful, personal connections. Even deeper is our relationship with places: our favorite corners of the house, our favorite places, our favorite landscapes. "*I'm sure that buildings last in time just because they manage to absorb the emotions of their inhabitants, weather happy or sad*"[16]. What we really connect with is not the object itself but the relations, meanings and feelings that object represents. In the design field, traditional crafts and techniques change their meaning. They are no longer connected to functionality, but they embody the history and the intrinsic narrative of those who invested the object with their time, love and passion. Objects are no longer constructive elements but experiential *cultural objects*.

5.1 Experience design: visceral, behavioural and reflexive

Human reactions before an object are complex and determined by different factors. Some of them come from within the individual, from his or her personal experiences.

Every design object is destined to prompt in its user a certain behaviour, therefore an experience. Achille Castiglioni used to say that we don't build objects but behaviours. More than a given kind of design, the expression "experience design[17]" evokes a design philosophy. It is a way to think and look at design from a relational and complex point of view. Experience Design is a way of conceiving the product beyond its aesthetical characteristics. It designs emotions and behaviours for the user. It has an emotional, functional and cultural impact. This approach has its roots in the work of J. Gilmore and J. Pine. They described how, in an "Experience Economy", the relation between products, places and experiences change in its form and modalities. There are

[13] By Giovanni Maria Conti, Politecnico di Milano (ITALY) - INDACO department.
[14] Morace F. "*L'innovazione Rinascimentale. Il design ci salverà. Ma come?*", in 7thFloor, Number 11, Volume 2, 2008
[15] Csikszentmihalyi M. and Rochberg-Halton E., *Il significato degli oggetti: i simboli nell'abitazione e il sé*, Edizioni Kappa, Roma, 1986
[16] Yoshimoto B., *Il coperchio del mare*, Feltrinelli, Milano, 2007, p 44
[17] For further information see AA.VV, "*Il* design*: un'attività di generazione di senso*". Interview to Roberto Verganti, ALIdesign, Milan April 2003, Flusser V., *Filosofia del Design*, Bruno Mondatori, Milan 2003, Simeone L., *EXPERIENCE DESIGN*, "AVATAR" n°2, November 2001, Ceppi G. "Il design dell'Esperienza", in Bertola P., Manzini E. (2004), *Design Multiverso*, POLI.design publications, Milan 2004

three levels of design: *visceral design, behavioural design and reflexive design*, each of them with a distinct role in the shaping of individual experience.

Visceral design concerns immediate reactions linked to human nature. It is fully based on the immediate emotional impact. *Behavioural* design is based on use. Appearance is not very important, what counts is performance. Tactile and sensorial perceptions are crucial elements for a behavioural judgment of products. Men are biological beings provided with body, arms and legs. A great part of their brain is occupied by sensorial systems that are constantly engaged in exploring and interacting with the surrounding environment. Finally, differently from the other two kinds of design, *reflexive* design is linked to the message, culture and meaning of the objects, and to the personal memories they evoke. Reflexive value goes beyond behavioural factors, because products can be more than the sum of their functions. Their true value consists in answering people's emotional needs.

Attraction is a visceral phenomenon; beauty comes from a reflexive dimension and from conscious experience. Therefore, it can be claimed that every object has a soul, no matter if it's real or not. Every object has a value attributed to it by those who use it and by those who created it. The latter, in particular, leave on the object a permeating, unique expertise. This is the soul that makes the object "live".

But as Pino Mantovani claims[18], "*the thing is 'other', that is, we define 'otherness' as the 'thing'. Even when we cross them or they cross us, things have different life rhythms and consistency levels. This is why sometimes things intangibly float away, and sometimes they hit us and undermine our proud intangibility. Things do not belong to us, actually the contrary may be true, that is, things may own us. If we accept this, we can imagine that a path keeps tracks of all those that walked on it, far beyond the actual life-span of the last footprints…*"[19].

If we consider Industrial Design as a cultural activity which, in fields dominated by creativity and taste, can convey technological, economical and production knowledge, then Industrial Design will have a specific task. Namely that of "*not only recovering some of art's essential roles, like making the world 'beautiful', or having a role similar to critical thinking, but it could also improve the entire organization of society.*"[20].

Today, innovation is a transformation in the way problems are thought of. If in the past innovation could have been a change in color or in shape, nowadays innovation means researching and experimenting on new materials. This can be done through new technologies or by recovering sartorial techniques specific of a given sector or industrial district. Therefore, the contents of a project are not limited to material products.

A project is a primary activity with capillary ramifications in all human activities. As a consequence, it does not belong to any specific profession. This is why we talk of *cross fertilization*, that is, transfers of knowledge between complex know-how, operative methods and planning approaches. This entails interdisciplinary cooperation between different fields of human knowledge, to the aim of creating innovation.

By introducing objects into the world, design partecipates in the planning of culture. Therefore, the history of designed objects becomes the history of culture. A functional object is, by its own nature, multifaceted, elusive and full of meanings. Throughout time, every object has had different meanings connected to its origin. Regarding the world of objects, the most urgent question concerns objects' future, or the future of design and its social role. In the introduction to Maurizio Vitta's book Il Disegno delle Cose, Mario Antonio Arnaboldi describes the future of design with these words: "*Objects' evolution does not lie in the repetition imposed by mass*

[18] Pino Mantovani in *Valeria Scuteri. Canto di donna. Canto di telaio*, Celid, Torino, July 2004 (Catalogue of the Exhibition, Chieri, Palazzo Opesso, 11th September – 10th October 2004)
[19] Pino Mantovani op. cit. p 9
[20] VanSevenant A., *FILOSOFIA DEL DESIGN, in IL FASCINO DELLE MERCI* ágalma, Castelvecchi, N°1, Roma 06/2000, p. 64

production, but in their originality. Such originality must be capable of grasping and answering society's real needs"[21].

6. Possible new visions: Antonio Marras[22]

"*Tradition is not a model to be copied, but the support upon which ideas take shape. There is no modernity without tradition*". This is Antonio Marras' philosophy, an artist/craftsman/fashion designer who pioneered the recovering of Sardinian handicrafts. Marras was born in Sardinia and there is where he decided to live and work, getting away from big fashion centers like Milan and Paris, where Marras presents his *prêt-à-porter* collection and *Haute Couture* collection for the Maison Kenzo. Marras style is very attractive and based on a distinctive creativity, connected to tradition but also linked to other cultures and epochs.

Marras' style is dominated by manual skills and knowledge, and is characterized by layers of fabrics, embroideries and decorations. Therefore, the piece of clothing is often unique as the creations of ancients dress-makers.

Fig. 3: Antonio Marras. On the left, a detail of a jacket with visible seams. On the right, a detail of a *Haute Couture* dress of the fall/winter collection *Adelaisa di Torres*. Made with Sardinian traditional pleating technique.

In Marras' collections, details and decorations are so many that poorest materials become rich through intersections, additions and overlaps. Free seams and tangled threads, inspired by

[21] Maurizio Vitta, *Il disegno delle cose, Storia degli oggetti e teoria del design*, Liguori Editore, Napoli, 1996
[22] By Federica Vacca, Politecnico di Milano (ITALY) - INDACO department.

Maria Lai's work[23], are some of the elements that define the essence of *Marras' style*: incompleteness, irregularity and hand-made quality.

As a consequence, techniques are fundamental. It is important to consider the very nature of textiles as an element that supports the collection narrative. Materials lead into a kind of sensorial process based on coherent elements: the tactile and chromatic aspects of fabrics, their relation to light and their material and sensorial value in relation to objects.

Serial production cannot guarantee the attention to details sought by Marras, nor can it reproduce the infinite decoration motifs that he applies to each model. Therefore, Marras needs the handicrafts skills he finds in the women-tailors from Ittiri, a small village near Alghero, heirs of the Sardinian art of embroidery. Marras entrusted them with the manufacturing of a limited collection called *Laboratorio*. With this line Marras conveyed the most creative and experimental side of his research. Each piece of clothing is almost a unique work of art due to the exceptionality of traditional embroidery.

With his catwalks, Marras tells us about a journey through time, and about an encounter of memories; he tells us insights from his own life and that of people around him, mixed with quotations from art and theatre. Together with Sardinian culture and the recover of manual skills, these are the founding elements of Marras' unique creative language.

Marras is the narrator of his own land, of abandoned and unguarded traditions. His attitude towards the past is that of recovering forgotten elements and bringing authentic stories back to life, with strong roots in their place of origin (Mancinelli 2006).

Narration is a fundamental elements in Marras' collections. Behind them there is always a narrative cue that inspires visual connections and original encounters. The narrative potential of clothes and ornaments is enhanced by the catwalk setting, a stage that introduces the public to an emotional narrative told with truly spectacular performances.

"*When I prepare a collection, I always start from the desire of telling a story. I choose the fabrics I like and I gather ideas that are turned into what I would like to tell, as if they were a script*." (Marras in Mancinelli 2006).

7. Conclusions[24]

In this context, design becomes a necessary interface between tradition and modernity. The role of design is important in order to make crafts production more contemporary.

Two possible interventions can be outlined. In the first scenario, craftsmen are cut out from the intellectual planning process, which is under the exclusive responsibility of the designer. The design/crafts/company relation is univocal because there is no exchange nor transfer of knowledge between the parts. The contribution of design is merely formal as it recovers and re-interpret classic codes and traditional materials, while crafts are viewed as a know-how tank to be exploited. If craftsmen do not fully understand nor feel part of the process, they will not comprehend the tools, processes and skills provided by design to answer market needs. This scenario could therefore remain an extemporary experience limited in time.

The second possible intervention requires that from the very start of the planning process craftsmen are considered equal partners within the project. Thus, the design/crafts/company relation is bi-univocal because there is a connection between designers' planning process and craftsmen's skills. They therefore cooperate in the planning and development of the product.

[23] Maria Lai. Sardinian artist who studied sculpture with Arturo Martini. In the core period of her career in Rome, she pursued a very personal search for community ethics and the myth of narrative. Her interest towards feminine manual skills and towards popular culture inspired some of her fascinating works such as *Geographies*, maps embroidered on fabrics and velvet, and *Sewn Books*: at first undecipherable writings, they then become fairy-tales told through sequences of images and patchwork.

[24] By Federica Vacca, Politecnico di Milano (ITALY) - INDACO department.

Such bi-univocal relation ensures that this experience can be repeated in time, and becomes an important innovation element for crafts production. Indeed, design activates an exchange of knowledge and expertise between the parts, thus transforming the traditional production process.

In the light of what has been claimed so far, it is possible to outline a new trend that aims at recovering cultural values accumulated in time through the strong connection between individuals and their community, and between crafts and local history and identity. There is an increased nostalgia for the past and wish to recover objects and memories from remote epochs. The encounter between different approaches, such as design and crafts, produces new ideas for products with different and unique codes. Due to these intrinsic characteristics, local products are *highly differentiated* goods (Sassu, 2003), and become "*cultural objects*" because they belong to a specific local identity. (Lai, 2007). Emotion is the key to unique experiences. Crafts and design can both re-elaborate tradition in a personal and unique way. Handicrafts convey the value of quality by evoking collective memories and the nostalgia for a remote culture charged with symbols and meanings.

Experience becomes representation, a scenario created by the *director* to arise emotions in the *client*[25]. This cannot happen in the world of crafts activities, because here the scenario is a fixed element provided by the territory in which they originate. There is a sort of *Emotional Geography*[26] in which space is emotionally experienced through memory and a the desire of experience. "*An internal and external landscape, made of people, things, imagination and intelligence, is always part of narrative developments. And it is precisely this landscape that gives meaning and sense to events and characters*" (Bruno, in Brogli, 2005).

Objects become icons that testify each culture's origin. Their power is conveyed through memory. Indeed, its narrative can combine archetypical images and future suggestions within a fascinating present. *Emotional Design*[27], as intended by Donald Norman (2004), defines a specific viewpoint within the context of design, by taking into consideration the emotional aspect of the man/object relation.

"*We tend to feel close to objects if we have a meaningful, personal connection with them, if they evoke pleasant and comforting moments. Perhaps even deeper is our relationship with places: our favorite corners of the house, our favorite places, our favorite landscapes. Actually we are not attached to the thing itself, rather to the relation, meanings and feelings it represents*" (Donald 2004). Thus, traditions are not an obstacle to innovation and creativity. From traditons arise knowledge and experiences that can be the starting point for new forms of expression. "*Tradition does not oppose progress, on the contrary it is the basis for any new challenge*" (Balfet, 1981).

[25] ibidem

[26] *"Emotional Geography"* is a theory by Giuliana Bruno, philosopher and professor at Harvard University. In her *"Atlas of Emotions",* Bruno analyses the universe of our emotional experiences. *"When I talk about Emotional Geography I am thinking of different perspective about daily life, of journeys inspired by a novel, of childhood smells. Or perhaps just imagination and memory. Itineraries that generate atmospheres, feelings, emotions that can arise by walking along familiar roads or in unusual places. Perhaps not exotic places, but places whose soul we can perceive"* (Bruno in Brogli, 2005).

[27] The expression "Emotional Design" has been defined by Donald Norman in "*Emotional Design*" (2004). His analysis underlines three aspects that need to be correctly balanced:

_**Visceral Design** *"is what nature does"* (p. 64). It is a simple kind of design, connected to the *visceral,* immediate impact before an object, which we perceive as pleasant because we find it close to our own nature.

_**Behavioural Design** *"is fully based on use"* (p. 68). This aspect of design normally coincides with usability. Norman defines four characteristics: function, comprehensibility, usability and physical perception. This kind of design is analyzed in Norman's "The Design of Everyday Things".

_**Reflexive Design** *"is connected to message, culture, meaning"* (p. 82). It takes into account the personal and social meaning held by design.

References

Abernathy, J.; Utterback, J.M., *Patterns of Industrial Innovation*, Technology Review, 1978.

Altea, G.; *Il racconto della forma,* Ilisso ed., 2003

Audoly, S., "Storie di ricami", in *Elle Decor*, n.10, 2007, pp.145-152

Baudrillard, J.; *The System of Objects*, Verson, 1996,, London, p. 76

Braddock, S. E.; O'Mahony, M. (a cura di), *Techno textiles. Tessuti rivoluzionari per la moda e il design*, Ascontex Editoriale, Milano, 2002.

Bertola, P., "Moda e Design quale rapporto" in *Impresa e Stato*, n° 62, gennaio-marzo 2003, pp.25-27.

Bertola, P.; Conti, G., *La Moda e il Design; il trasferimento di conoscenza a servizio dell'innovazione*, Edizioni POLI.design, Milano, 2007

Bertola, P.; Sangiorgi, D.; Simonelli, G., (a cura di), *Milano distretto del design*, Il Sole 24 ore, Milano, 2002.

Brogli, L., "Atlas of Emotions: intervista a Giuliana Bruno", in Aria Magazine, n.1, giugno 2005, pp. 14-29

Caoci, A.; Lai, F.; *Gli oggetti culturali. L'artigianato tra estetica, antropologia e sviluppo locale*, Franco Angeli, Milano, 2007.

Castagna, R.; Roversi, A. (a cura di), *Sistemi produttivi: Il processo di pianificazione, programmazione e controllo*, ISEDI Editore, Torino, 1990.

Castells, M.; *Il potere delle identità*, Edizioni UBE, Milano, 2004.

Celaschi, F.; Deserti, A.; *Design e innovazione. Strumenti e pratiche per la ricerca applicata*. Editore Carocci, Roma, 2007.

Cerretini, A., Tempesti, A., *La guida dei tessili per impieghi tecnici e innovativi*, Ascontex Editoriale, Milano, 2000.

Dezzani, F.; Pisoni, P.; Puddu, L., *Il Bilancio*, Giuffrè Editore, Milano, 1996.

Donald, N.; *Emotional Design*, Apogeo, Milano, 2004

Fabris, G., *Il nuovo consumatore: verso il postmoderno*, Franco Angeli, Milano, 2003.

Fiornani E. *ABITARE IL CORPO: LA MODA*, Lupetti Editore, Milano 2004

Flusser V., *Filosofia del Design*, Bruno Mondatori, Milano 2003

Frassine, R.; Soldati, M.G.; Textile: design e tecnologia; CUSL, Milano, 2004

Frisa, M.L.; *Antonio Marras. Dieci anni dopo,* Corraini ed., 2007

Grant, R., *L'analisi strategica per le decisioni aziendali*, Il Mulino, 1998

Hannerz, U.; *La diversità culturale*, Il Mulino, Bologna, 2001.

Maffei, S.; Simonelli, G. (a cura di), *I territori del design*, Il Sole 24 ore, Milano, 2002.

Mancinelli, A.; *Antonio Marras,* Marsilio ed., 2006

Nesti, S.; "Il tessile tecnico guarda al futuro", in *TTI Tessuti per Impieghi Tecnici e innovativi*, n° 6, anno IX, giugno 2002, pp. 8-10.

Normann, R.; *Le strategie interattive d'impresa*, Edizioni Etaslibri, Milano, 1998.

Paris, I.; *Oggetti cuciti. L'abbigliamento pronto in Italia dal primo dopoguerra agli anni settanta*; Franco Angeli, Milano, 2006.

Pine, J.; Gilmore, J.H.; *L'economie delle esperienze*, Etas, Milano, 2000.

Pencarelli, T., *Piccola impresa, alleanze strategiche ed integrazione europea*, Aspi/Ins-EDIT, Genova, 1996.

Rivetti, C., *CP Company-Stone Island*, Automobilia, 2001.

Rullani, E.; *La fabbrica dell'immateriale*, Editore Carocci, Roma, 2005.

Sassu, A., Lodde, S. (a cura di), *Saperi locali, innovazione e sviluppo economico*, Franco Angeli, Milano, 2003.

Saviolo, S.;Testa, S., *Le imprese del sistema moda*, Etas, Milano, 2000.

Schumpeter, J.A., *Teoria dello sviluppo economico*, Firenze, Sansoni, 1971.

Serlenga, L. (a cura di), *I dettagli cambiano la moda*, Edizioni Tessili Vari, s.l., 2007

Simeone L. *EXPERIENCE DESIGN* "AVATAR" n°2, Novembre 2001

Soldati, M. G., *La cultura del tessuto dalle origini al design contemporaneo*, Edizioni POLI.design, Milano, 2004.

Strada, N., *Moda Design*, Editoriale Modo, Milano, 1998.

Tempesti, A., "Dall'esperienza del settore sportivo un innovativo underwear ignifugo", in *Confezione*, febbraio, 2007, pp. 96-98

Tempesti, A., *Nanotecnologie per il tessile,* atti del 5° Convegno Tessile e Salute del 17 marzo 2005 / Associazione Tessile e Salute.

Tempesti, A., *Tessili cosmetici*, atti del 5° Convegno Tessile e Salute del 17 marzo 2005 / Associazione Tessile e Salute.

Turinetto, M., *Moda e Design, nuove trasversalità progettuali*, POLI.design, Milano, 2002.

VanSevenant, A.; FILOSOFIA DEL DESIGN in IL FASCINO DELLE MERCI ágalma: rivista di studi culturali e di estetica, Castelvecchi, N°1, Roma 06/2000

Vivarelli, M.; Pianta, M., *The employment impact of innovation – Evidence and policy*, Routledge, London , 2000

Zurlo, F.; Cagliano, R., Simonelli, G.; Verganti, R. (a cura di), *Innovare con il design. Il caso del settore dell'illuminazione in Italia*, Il Sole 24 ore, Milano, 2002.