

Design and new behaviours: Project responsibility, social and cultural connectivity. [Three case studies]

Design e novos comportamentos: responsabilidade do projeto, conectividade social e cultural. [Três estudos de caso]

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Abstract

In the design practice, physical action is combined with intellectual action and comprehension of the reference context, the essential starting point and line taken by the project. The ability to create connections (connectedness)¹ is developed during the evolution of innovation processes, which, together with the activity of cultural design mediation, contributes towards the diffusion of new behaviours. These new behaviours are oriented by a sense of responsibility, memory and context. The project defines products and strategies as a guide to the introduction of ways to act responding to the social values and expectations in terms of well-being. Three different experiences, three stories have been taken, from which several tools were identified as characteristics of a specific culture and manner. The ability to observe considered to be making visions and concepts take shape, based on knowledge and history and on bonds with tradition; the ability to take care, communicating a specific know-how to, eventually, become a social value of a behaviour model; the ability to give-back, a sequence of reciprocal contributions of giving and taking between the company and the place to which it belongs; the ability to listen which, by also drawing from ethical stimuli, places the end user at the centre of the process; and, finally, the ability to co-operate, a patient organizational construction and combination of competence, for the diffusion of the new behaviours. All permeated by an atmosphere, a spirit pertaining to an identity-related culture, developing the ability to create ties.

Key words: design practice, project responsibility, social and cultural connectivity.

Resumo

Na prática do design, a ação física é combinada com a ação intelectual e compreensão do contexto de referência, como ponto de partida decisivo e linha adotada pelo projeto. A capacidade de criar ligações (conexidade) é desenvolvida durante a evolução de processos de inovação, que, com a atividade de mediação cultural do design, contribui para a difusão de novos comportamentos. Esses novos comportamentos são orientados por um senso de responsabilidade, de memória e de contexto. O projeto define os produtos e estratégias como um guia para a introdução de formas de agir que respondem a valores sociais e às expectativas em termos de bem-estar. Três diferentes experiências, três histórias foram tomadas, das quais várias ferramentas foram identificadas como características de uma forma e uma cultura específicas. A capacidade de observar, considerada como fazer com que visões e conceitos tomem forma com base no conhecimento, na história, nos laços com a tradição; a capacidade de tomar cuidado, comunicando conhecimentos específicos para, eventualmente, tornar-se um valor social de um modelo de comportamento; a capacidade de dar retorno, expressando uma sequência de reciprocidade de dar e receber contribuições entre a empresa e o local a que pertence; a capacidade de ouvir o que, também pelo desenho de estímulos éticos, coloca o usuário final no centro do processo; e, finalmente, a capacidade de cooperar, uma paciente construção organizacional e combinação de competências para a difusão de novos comportamentos. Tudo isso é permeado por uma atmosfera, um espírito que pertence a uma cultura identitária e que alimenta a habilidade de criar laços.

Palavras-chave: prática do design, responsabilidade do projeto, conectividade social e cultural.

¹ The concept of connectedness, the ability to create links, a cross-disciplinary approach, is introduced by Levi Strauss. In our interconnected society, coexistence is based on availability and the ability to understand others.

Operate decisions

The daily dimension of existence is the most common context in which design moves. The daily etymology (Latin: *cotidie* "every day") refers to time, intends the life of whatever runs through it, and, therefore, the plane on which to measure the "quality of life". In conceiving new products, services or strategies for every day economy², design assumes the individual, in their real and effective life, as central reference point and, through inventive, connective, communicative moments, identifies new circumstances arriving to the point of influencing practices. The sphere of daily routine appears as the breeding ground of social innovation forms, a context for new behaviours to emerge.

Definitions and meanings proliferate around the concept of pervasive design in daily routine.

The diffusion and often abuse of the term elude univocal correlations, recalling visions focused only on the exterior and consumerist aspect, from art to mass production, from fashion to engineering, from graphic art to architecture. Those working in the environment are well aware that design is a complex, transversal subject (Maiocchi, 2007), be it working towards a clarification and a more incisive recognizable and recognized role in society.

In the definition normally used as a reference by the scientific community, that of Icsid³, it is explicitly clear how the sign of the times has re-positioned design with respect to the concept of "design or artistic projection for industry" of around the last fifty years, to design as "marketing by-product"⁴ (Carmagnola, 2008). The "industrial" adjective coupled with design is correlated to the term industry with the old meaning of *industrious activity*, which can be practiced by a broad spectrum of professions contributing towards boosting the values of life *in chorus with others*.

A multitude of opportunities is reflected in a certainly vast industrious field. The project is, therefore, to *operate decisions*. The criteria at the bottom of these decisions define the sense of responsibility of the project. Responsibility which cannot but have ethical effects, because it is exactly ethics that tells us what is good and what is bad, right or wrong⁵.

The objective consequences of the actions of the designer's subjective *ethical motivations* are placed upstream (Manzini, 2006). And, talking about project responsibility, what is shown as *ethically important* is not only the intentions behind a certain action, but also the implications and effective results.

A vision of design is, thus, prefigured taking upon itself that sensitive, moderate but intense culture, aware of the global situation of the planet, where it is no longer the time for waste or excess. One goes beyond the 'use-once-throw-away' solutions, beyond excessive objects, assuming ones own responsibilities. It leads to a new awareness of what to choose, what to use, recalling themes linked with sustainability. A design acting as an engine for a diffused innovation in society, an open entrepreneurial culture, ready for experimenting, also and exactly in times of crisis, new ways of operating.

Naturally the designers do not have the tools for imposing their point of view. As they use tools making it possible for them to intervene in the daily routine and the quality of objects, they anyhow have the *project responsibility*, against social expectations in terms of respect for community and environment. And if until yesterday only a few proposed an alternative model, and were perhaps considered as radical opponents to a common model of development, today under the eyes of everyone, and also by effect of the crisis, one proposes the awareness that this decision is at the roots of any designing operation. If personalities such as Papanek⁶ were subject to debate, arousing not just a few controversies, we now find ourselves facing a situation in which that appropriately re-contextualized matrix is now an important outlet. It is not at all a question of stopping to imagine and to propose solutions: a counter-trend role is assigned to the capacity to observe and to the imagination typical of design, a *project responsibility* important for generating social expectations in terms of well-being.

Atmosphere and local rooting

The mind looks ahead, obliquely, behind its back, and with far-sightedness towards the future. A capacity, to look, rooted in the local dimension, geographically and culturally established, giving life to distinctive activities linked with a specific territory. In a place where economic and material flows cross over with each other, but also interchanged knowledge, experiences, a series of immaterial and intangible factors of immediate difficult understanding, but strictly pertinent to local development. The economist A. Marshall had already spoken about "industrial atmosphere" to sum up the series of local intangible factors which could, by their presence or absence, contribute towards making the fortune of certain places. The Molotch (2003) *lash-up*

² On the theme of daily life see Jedlowski and Leccardi (2003, p. 167). See also item "Economia del quotidiano" (in Castelli and Villari, 2004).

³ For the ICSID design definition see www.icsid.org/aboutus/definitionofdesign.

⁴ Words used by Fulvio Carmagnola (professor of aesthetics at Milan, Bicocca University) in the preface to the Italian translation of *Story of Design* by Burdek (2008) promoted by Isia in 2008. On page 10 you can read: "Amongst the differing underratings or overratings [of design] to my mind there are three principal ones: the apologetic tendency to exalt the magnificent destiny of a subject which today finds itself at the centre of attention, of undisputed marketing orientation significance, ending up by being a *by-product* of the latter. And, alongside this, other two specular tendencies: one which I would call aesthetic-formal-like [...] and the other definable as functionalist technocratic [...] the first heir to southern European Humanism, the second of the protestant severity of central northern Europe" (Burdek, 2008, p. 10).

⁵ Ethics: "every doctrine or speculative meditation on the practical behaviour of man, above all if intended to indicate what is true goodness and the means aimed at its achievement, what the moral duties are towards oneself and towards others, [...] the series of duties strictly pertinent to the professional activities operated in society (Treccani Dictionary, DNS).

⁶ One for all Papanek, considered as foremost on matters of the social and moral responsibility of design. His extreme visions, which make many feel uncomfortable, are now frequently mentioned after a long period of disinterest (Papanek, 1969, 1995).

is a more recent version of the same idea, *atmosphere*⁷, (mood) a spirit belonging to a specific culture and which develops the capacity to create ties. People breathe it in through stories, customs, roads, objects, smells, colours and all the ways of conserving the life of it all. It seems like the resource of “considering things as a foregone conclusion” is sometimes exactly the one that indicates the right path to take. Considering things as a foregone conclusion to resolve a problem, not pedantically evolving a process already begun and perhaps already very intricate, rather changing around the point of view and finding *new ways* without losing sight of the atmosphere, the daily routine of each one of them. A sort of tacit awareness (Viale, 2008) whereby the necessity to make reference to a place sounds like a warning not to overrate the purely technical and scientific dimension of knowledge to the detriment of the others.

The theme of ties with the territory is very strong in the Latin Mediterranean tradition, even though with the implicit awareness that it is an inescapable tie, almost too obvious to talk about. Since 2002, the year in which the national ME. Design research was started up, engaging 7 Italian universities and concluding with the organization of a meeting and an exhibition in Genoa (November 2004) involving universities from all the countries in the Mediterranean Basin, design to enhance the territory has witnessed a considerable development. Many research activities operated inside our universities are marked by this spirit and “fertilized” by this procedure.

Research on design and creation of value

Many of our contacts are still not able to immediately associate the term research with design. This phenomenon can be explained, at least in part, considering that many people associate research with a scientific type of discovery, such as in the chemical, medical field, etc. The sphere of research in design, recognizable as one's own sphere of study from the sixties⁸, has not generated assimilation of said widespread scientific culture in countries such as Italy and neither in other Latin countries. The Italian situation in this sense is quite singular: the important role of design within the international framework, recognized all over the world as bearer of sense directed towards the search for new meanings, has not factually adopted a formulation in science (Manzini, 2008).

The Design Research Map⁹, conducted in 2008 by the Italian university community for design, traces an outline of the situation.

Notwithstanding a total absence of explicit policies to sustain design (unlike other national situations), Italy has anyhow always found incentives and an engine for

developing the subject by taking spontaneous unofficial routes. The distinctive feature activating these researches in design processes is often to promote fiduciary relations starting from tangible experiences.

The experience of the Genoese school of design has a recent academic tradition (the first courses were held in 1995). It is woven into an industrial fabric marked by small to medium enterprises¹⁰, with several companies of excellence in the marine, defence and pleasure craft technologies sector. There are also major industries with importance on an international scale.

The activity, in harmony with the Italian way of *doing design*, goes beyond the narrow perimeter of basic academic research, projecting itself towards the outside in relation to the economic and social productive territory in which it operates, interlacing relations and involving actors and expertise in a dynamic synergy creating other connections as it grows. The growing process passes through the creation of preferential relationships between enterprise and university, by which and with which projects of applied research are progressed. The innovative process triggered off by these research practices, reveals an action of *fertilizing design*, which in particular has developed projects and established relationships in many spheres.

Case stories

The ability for action of the processes does not depend on the resources (excellence is not synonymous of wealth), but from the way they are used, through know-how, intelligence of the men and women comprising the socio-professional system. Excellence enriches memory (the knowledge of how to conserve the historical heritage, the identity), as long as it is not kept as a hostage of its past. Behaviours of excellence imply that, through these, the enterprise will have the ability to find the best cohesion between environment, strategy and structure in the shortest time possible.

The virtuous circle which can be set up between university and enterprise, with the addition of competence aimed at producing value, not intended as wealth but precisely as excellence, also rests on a cultural need. Often nowadays the *cultural need prevails over the technical one*.

The case stories, three stories very much like many others, clearly show the contribution of design for producing the value of an enterprise, (regarding the first two) and as a practice for spreading and approaching new potential relationships (regarding the third one). Under certain aspects the three projects diverge from the more common field of action of design. If in fact the demand for research for design is more frequently

⁷ For the atmosphere concept see Molotch (2003, p. 248). One of the major concepts in the volume is the lash-up concept, i.e. improvised synergy created amongst the various economical, technical, cultural, institutional factors and therefore specific to a place, a culture, contributing towards giving life to any project, of any extent (ed. it on page 248).

⁸ In this sense we would mention the contribution of Herbert Simon (1969) who in “The science of the Artificial”, expresses the necessity for a science of design.

⁹ See the DRM project at <http://www.sistemadesignitalia.it/drm/> (DMR, 2007).

¹⁰ Small to medium business.

intended as a study to develop formally innovative projects directed towards creating new products and/or re-designing products already existing, the experiences illustrated here show how the contribution of design can re-direct the demand for research already placed by the business to achieve a value, not necessarily a profit, based on cultural growth, exchange, establishing behaviour abiding by ethical stimulus.

The first two experiences, related to collaboration with traditional Genoese companies, be it entirely different, are integrated by the third, an activity performed in the field of education.

The possibility of setting up collaboration with local institutions starts from demonstrating competence and possibility of simple plausible solutions. The choice of this third case demonstrates how innovation in processes does not necessarily consist of proposing technologically advanced solutions, but rather the ability to adapt and *connectedness*, as well as the diffusion of the developed practices.

Case 1. Boero Group. Colour product optimization

The business and relevant context

The Boero story starts in 1831, with a wagon, a horse and a small “biacca” (lead carbonate) factory run by Bartolomeo Boero. Powdered biacca is the only pigment known at the time and its resistance is proved by centuries old pictures and paintings. The painters mix it with walnut oil using a primitive rolling-pin and a slab of marble, packing and selling it in slabs, following a system already used by the Romans. In 1856 it is already set to conquer new markets: Naples, Palermo, and Catania. The same as with any story, passing from father to son brings innovation, growth and development. The years of economic boom bring further expansion and the need for a new factory. Even though the position and shape of Genoa now hamper industrial economy, the decision to remain centred in the area leads us to the fundamental theme of the *deeply rooted bond with the city*. In 1982 evolution in production and an increase in turnover necessitated transformation into a holding. Boero France is established in 1994, purchasing trademarks and factories. The Boero Group now has 8 trademarks, 3 factories (Genoa, Pozzuoli and Aprilia) and a new one under construction (Rivalta Scrivia, Tortona). It has about 500 employees. Alongside deeply rooted ties with the territory, also *flexibility for changes*, that is the ability to keep in step with the times, are aspects of the corporate policies reflected in a strong conviction of its own identity.

Briefing - research - action

The project is founded on the assumption that the design and culture of the project are essential in the search

for new solutions in a market overflowing with products where competition is played at different levels, on distinctive values of the offer. Relations with the university were set up in 2004.¹¹ The demand for research is generic: the need to propose the use of colours is highlighted, the objective anyhow being to produce and sell more. The Marketing, Resources and Development management, a sole unit, is the contact with the university. Right from the start, the objective of the project is not only based on introducing new product concepts, focused on opening up new fields of action, directing the cultural sphere of the Company. Is it possible to work on colour to derive new contributions? What fields would leave room for new experiences and in-depth analysis, broadening the field of knowledge and of applications? Can design, not only linked with the formal attributes of the product, extended to the project for service and experience, moving around amongst the fields of humanistic disciplines and those of technique, contribute towards new senses and meanings? Addressing activities of research and investigations there where there are problems, new roads are opened for finding the answers.

First project: Colour for places for medical care. From goods to affective and expressive value

The investigation issue exceeds the limits of the more commonplace sphere of research in design, directing and experimenting innovation at the process level. Having the diffusion of colour as its target it proposes a social usage, working on the affective dimension, apart from the technical one. How is colour perceived, what significance do they attribute to it?

In situations of hospitalization, discomfort, the mnemonic, physical and perceptive references which each place where one lives intimately gives off are inevitably absent, whilst others take their place. What effects do objects and spaces induce on the quality of life in which and with which they develop? If colour merges with memories, traditions, desires, if harmonies and chromatic combinations induce effects and sensations through ad hoc projects, is it possible to create friendly space and objects, to take up the threads of one's own life again after they have been impaired by the separation from one's own environment?

Colour is the communicative mediator which, unlike verbal language, has an unlimited amount of interpretative possibilities, and as a live instrument acquires a strong potential exactly in places for medical care, in situations of discomfort where one is intimately out to look for references to positive situations possibly inducing effects on one's own condition. A sort of decompression chamber, capable of transporting from the real world into the world of memories and facilitate the arousing of positive sensations and sentiments, a cooperative attitude with the entire therapeutic system. At the same time colour in places for medical care is an evident method of treatment of the interior environment, with quality.

¹¹ Since 2004 up until today 3 research projects, 2 scholarships in three-year doctorates, 1 cheque for research have been funded. Many teams and expertise involved. Coordination and operational responsibility: R. Fagnoni.



Figure 1. A sort of decompression chamber, capable of transporting from the real world into the world of memories.

Research has set up a tool kit and a method for observing the users and recording their needs through inter-disciplinary co-operation. Resulting data demonstrate a central core of experience, explicitly rendering the interdisciplinary value of the research and, through an evaluation looking back,

expressing the role of colour at an experimental level, on the *perceived affective quality*¹², a result of perception mediated by effective experience. Total duration of project: 3 years. Results: Process model. Experimentation applied to medical structures for hospitalization¹³.



Figure 2. The perceived affective quality, a result of perception mediated by effective experience.

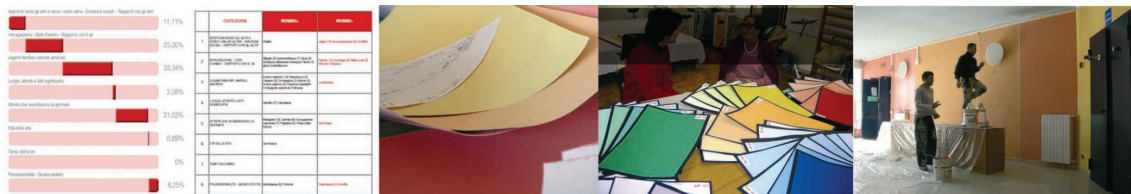


Figure 3. Research has set up a tool kit and a method for observing the users and recording their needs through inter-disciplinary co-operation.

¹² For the concepts *factual quality* and *affective quality perceived* see la teoria del luogo by Canter (1977).

¹³ For details on the research see Fagnoni (2006). Activities completed: Methodological colour project study, The colour of memories, Qualitative enquiries, colour projects for medical structures Istituto San Camillo, Genoa, Massimo Lagostina Alzheimer Centre, Omegna, Nursing home Soma-
maglia, Lodi, Rehabilitation Institute Don Orione, Bergamo, Mental health centre Health Unit 3, Genoa. Participation to sectoral trade fairs (stands, setting up), publications.

Second project: Colour as sustainable and do it yourself (DIY) practice. Atelier en Tournant

'Atelier en tournant' is proposed as a laboratory to experiment a new approach. An experience to enhance the use of colours in the daily domestic habitat, reaching a climax in mounting an exhibition for Casa Decor, in the Turin 2008 edition. Colour as a communicative go-between, interior designs taking on that sensitive, moderate but intense culture, aware of the global situation of the planet. Like steps in a dance, *en tournant* proposes a turn, a turning point, an inversion of tendency. It reminds one that this is no longer the time for waste or of excess. It goes beyond the 'use once throw away' solutions, beyond the excessive objects, it reevaluates the awareness of the individual. A new awareness of what one chooses, what one uses, *en tournant*.

A design for interiors, which does not impose products and styles, reversible or light, capable of adapting itself to the rapid changes in demands, also temporary and unforeseen, as happens everywhere, often disused and re-commissioned. A design integrating the time variable, as a structural and dynamic element, capable of connecting and integrating container and contents adapting itself to the necessities, desires of the person living there, conforming itself to the nature of the place, enhancing the environmental quality. Project and strategy as a construction of sense, aimed at defining new methods for reaping benefits and the proposal for new rapports between user and product, spokesman for values and lifestyles.

On a parallel solutions for enhancing colour have been progressed in the sales point, through artefacts (products, services, communication) that spread the use of colour for do it yourself.



Figure 4. Atelier en tournant.

Case 2 : Ansaldo Energia. The energy factory

The business and relevant context

Ansaldo Energia S.p.A. was set up from the division of the Ansaldo Company in 1953. It is now the principal company in the Ansaldo Group, the civil engineering sector of Finmeccanica, worldwide leader in the production of power plants.

Its origin goes back to 1845, when the State decided to sponsor the foundation of a mechanical work to supply trains and services for the Turin Genoa railway line. The convention for building the "great metallurgical workshop" in Genoa was signed in May 1846.

The First World War sees Ansaldo as a leader in industrial mobilization and production of war material, also launched into the electrical and mining sector, with the control of work sites and mechanical companies, and the aeronautical sector. The effects of the 1929 slump are heavy: in 1934 steel making is hived off into a separate company called Siac. In the Second World War post-war period the arsenal-related mentality

is forced to be abandoned and new challenges are opened up linked with the re-opening of the markets and international competition. Ansaldo comes under the control of Finmeccanica, financial company in the Iri (Industrial reconstruction institute) sector. Ansaldo's complex activities have undergone various stages of reorganization resulting in the actual sub-division into Ansaldo Energia, Ansaldo Nucleare, Ansaldo Trasporti Sistemi Ferroviari, a major European company, Ansaldo Breda, started up from the merger of the Ansaldo Trasporti and Breda Costruzioni Ferroviarie company branches, engaged in producing trains, engines, trams, and Ansaldo ricerche operating in the field of electronics and advanced energy generation.

Ansaldo Energia today covers the entire spectrum of energy production: from supplying turnkey power plants to producing both steam and gas turbines as well as the generators, from service and maintenance to development and research in the new sources of energy field. It has installed over 164'000MW in more than 75 countries and employs about 2270 people (Bagnasco et al., 2003).

Briefing - research – action

Relations with the university are set up in 2007¹⁴. It is a technical specific demand for research, with a structured, detailed briefing. The demand is for a system of solutions to resolve the *shell* requirements of the various components of the *Power Plant* system to be able to answer to international calls for tenders for the award of projects, more easily. A briefing directed towards identifying formal and technical solutions, for an improved aesthetic solution and impact on the territory of the Power Plant System. The research team is partnered by a team of engineers from the Company. The work is not very easy at the beginning, it implies correlation and confrontation between languages and approach to the problem, beginning from afar. The study and in-depth examination of the problems linked with power plants leads the group to focus the problem on a different scale, and from another direction. The basic questions are tackled before dealing with the formal solutions. What role does the plant cover in the territory? What relations are there between the inhabitants, context, and the object of the project? Not so much the design problem of *how*, as the design of *what* and *who*. The problem is re-directed to think over the significance of a plant producing energy as a theatre for relations between the individual and the plant's activities, between individual and territory.

To conceive the Power Plant as a Factory to produce energy signifies introducing it into a meaning which in the collective imaginary world represents part of the common values of our society. As a Factory, the fact that it produces is implicit and that it is subject to emission controls, with an optimization of the advantages. In the Power Plant concept one instead finds the idea of a place not at all clear as far as rapport is concerned, reminder of negative significances, such as pollution, fumes, and the dominating invasive structure.

The approach of the design is to set up a project strategy placing man at the centre, to optimize the rapport between machine and individual, between machine and context.

The tools and key to interpretation set up by the research are:

Project perception

Apart from the product (technical object) the rapports, image perceived by the users are also subject to the study. Perceive means to understand, therefore project perception signifies dialogue, trust, transparency. Not mimesis, an illusionary attempt to conceal the machine behind expedients of an architectural or naturalistic nature in the areas of inter-visibility, rather opening up the energy plant as a present day need.

Get there first

Get there first and anticipate reactions with actions. Not suffer innovation but ride it in a strategic vision, be the first to communicate details of the energy plant with transparency keeping in mind costs and benefits and knowing how to seize new opportunities for development.

Taking care

The visible pollution generated by aggressive inhuman constructions destroys the dignity of man: to engage oneself with industrial structures in this sense implies taking up a position. Caring communicates a particular know-how and can become a social value, a model for behaviour.

Taking care signifies communicating attention to details, to what one perceives and what one experience and benefits by. Taking care of the visible transmits trust in the care of the invisible, which is quality of emissions, respect for the environment.

Hinge

The hinge concept, in its interactive dimension and rapport between energy plant and territory, does not refer to a punctilious action, but is performed through multiple objects and experiences. The hinge is a set of solutions adopted for a friendly energy plant, offering the possibility of reaping benefits, better living conditions.

From meadow to meadow

The dimension of time and rapid consumption bearing on the structure for producing energy, impose considerations as to the transformation of objects and volumes as time passes. The energy plant project covers the whole of the system's life cycle, foreseeing the necessary actions for the purpose of decommissioning and reclamation. Proposals are developed for recovery and recycling the system's components for social purposes.

Reputation reliability

Building up a reputation for an energy plant creates a positive rapport between benefits derived from the offer system and costs born by the community. Perceived value is a narrative, symbolic, evocative value conveyed by the trademark, from what the trademark communicates, from how it presents itself.

A profitable rapport is born from the research work leading to funding a doctorate scholarship for the 2009-2011 three-year period, to consultancy for enhancing specific projects for introduction.

¹⁴ Scientist in charge of research: M. B. Spadolini; responsible for coordination and operations: R. Fagnoni. Research team: R. Fagnoni, L. Mazzari, S. Pericu, L. Enrico, L. Ugo, G. Traverso. Ansaldo Energia S.p.A.: Eng. G. Arena, Eng. S. Bertini, Eng. S. Dedaj, Eng. A. Giacchino. Project promoter: Eng. G. Zampini - A.D.AEN.

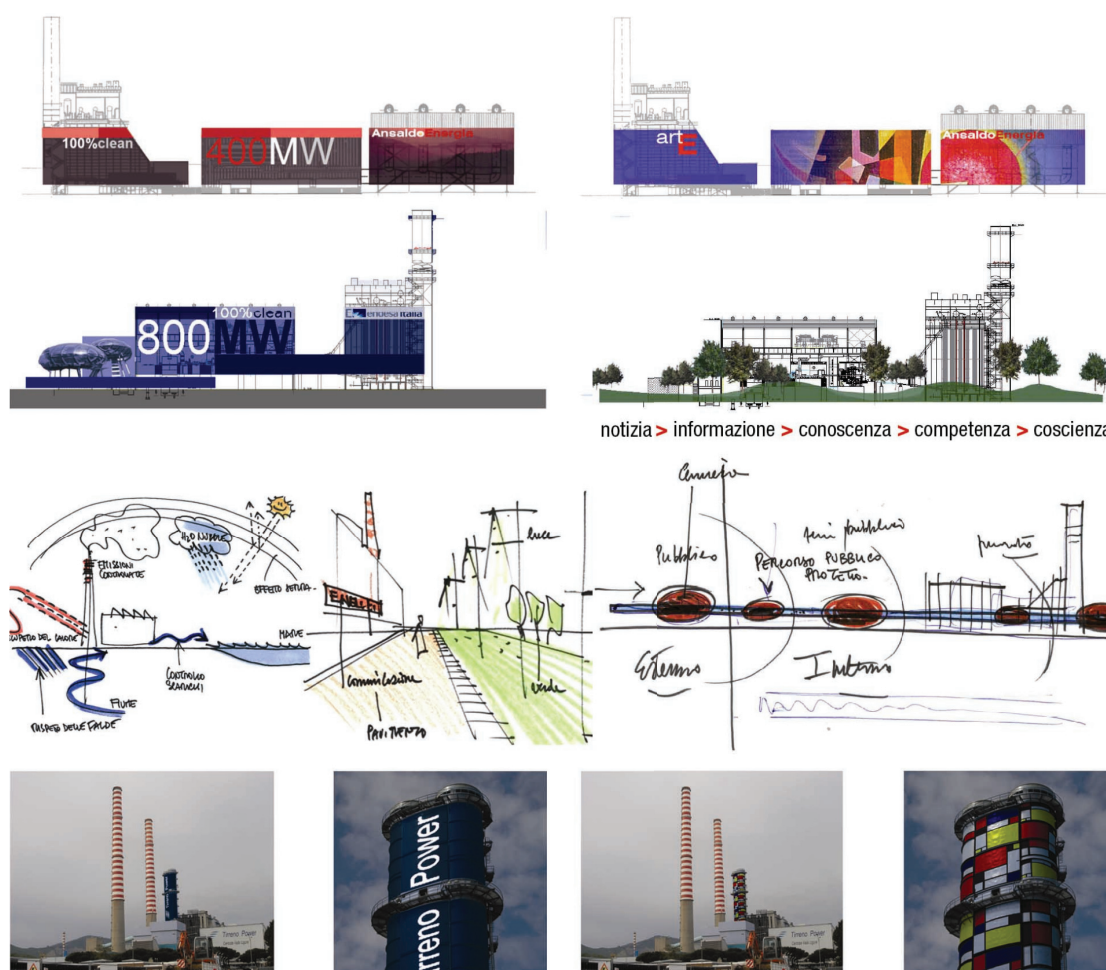


Figure 5. Ansaldo Energia. The energy factory.

Case 3: Teaching research experience. Less Waste

The *Design and new behaviour. Less waste* project inevitably and psychologically takes upon itself one of our world's major problematic themes: environment and pollution on the one side, development mechanisms and the present lifestyle on the other. The project is to look to the future, and, even if a project can certainly not change the world, it can at least participate with its tension, in sending back a message, proposing a new way of looking at things, making it possible to be experimented.

The situation that came to be created in the Campania region¹⁵ with the dramatic piling up of waste along the roads and bad prospects for a definitive solution, brought the Italians up against having to review the habits connected with the daily production of waste, and also the way of planning, as a consequence, in the awareness of having reached the extreme limit of a ridiculous waste of resources. The activities repeated in everyday life, propose open questions: how can you intervene on daily behaviour to avoid aggravating the situation even further? Is it possible to think up a solution capable of inducing a change in individual behaviour? Is it possible to have an

effect on the behaviour of institutions and administrations through the tools of design?

The issue is ripe for a project research, invested with responsibility for a *role* (that is the series of duties derived from a social office), precisely as it is a research activity, especially if institutional, and even more so if focused on education. There are now many people engaged in research and experimentation on this issue, but there is still a wide gap between research and widespread daily routine, especially in Italy. An occasion for developing the ability to deal with specific problematic issues, understand the relevant complexity and recognize room for the project to act in the latter (what is commonly called proactive attitude, that is, intended for problem finding and relevant subsequent resolution).

The object of the first step was a theoretical investigation (research desk) and to gather iconographic documentation. Working in small groups the students investigated the issue of managing waste in the various spheres: domestic, office, school and university, chain distribution, urban, means of transport, etc.

Three issues were dealt with in the second step, based on the contributions gathered together:

¹⁵ Starting in 1994, the waste crisis in Campania is characterized by the "state of emergency" for normal solid urban waste disposal in the Region. Between 2007-2008 the situation collapses (see http://it.wikipedia.org/wiki/Emergenza_rifiuti_in_Campania).

- (i) *Less waste: packaging.* Analysis of a certain type of packaging and project for alternative solutions (re-design or concept).
- (ii) *Less waste: strategy.* Identify behaviour and “minor actions” to reduce waste in the various spheres. Project for narrated solutions (design, storyboard, mounting photos).
- (iii) *Less waste: product.* Re-designing a product for one of the above spheres.

On a parallel with basic education, the theme offers an occasion for making the students participate to the responsibility for the future, and social connectedness, where they find themselves as promoters.

This activity arouse the interest of the Institutions: the Regione Liguria Environment Director participated to a meeting-exchange of experiences and information with the students and was pleasantly surprised by the fact that design *can* engage itself with these problems, proposing flexible practicable solutions. The activity has just ended, but the possibility of generating activities in collaboration as applied research with some of the local institutions, is not to be excluded.

The value of the project does not lie in the proposed solutions¹⁶ (technical or intangible products). The whole series of practices carried out in the process and relevant diffusion in the local community are far more important.

The steps in the work progress, sharing and confrontation with social reality, represent moments of collective maturity. Here then is the confirmation of the necessity-utility of the university social reality rapport, between Research and socio-productive Reality. A necessary rapport not only on major issues of basic research and translation of the latter into powerful technological innovations, but above all a fertile bond also with the “minor” innovations linked with the dimension of daily life. To be really effective, *innovation*, acquiring a critical mass, must become a *habit*, almost a permanent *state of mind*.



Figure 6. Less waste.

Conclusions

Common tools-methods can be taken from the presented case stories and shared in the project practice adopted by the research group. Keys to interpretation, approaches communicating a way of reasoning and a different set up to what the practice of the same theme would have produced if there had not been any collaboration with the university. This because the university is a question of prestige in the minds of local enterprises.

The construction methodology shared by the various operators in the research team is permeated by local culture, by the atmosphere (mood) it breathes, by a *way of doing design* where ethical stimuli lead to setting up a different scale of values also for the entrepreneur. A dynamic built up step by step, with a progressively growing rapport of trust, where one perceives the Italian way (and Latin roots) of doing design, which is consolidated during the moments of work and confrontation but also in times of relaxing together, such as eating together, and in being a part of a local issue for which one wants to create opportunities of reaping results.

Ability to observe

Design cannot be expressed on a blank page. The ability for observation signifies developing and making visions and concepts take shape, basing oneself on knowledge and history, on ties with tradition.

Ability to listen

Be aware of ones own responsibility in representing the end user.

Give special attention to the problem issue, put to oneself the right questions to facilitate ones own process. Consider the cultural need and not just the technical one.

Ability to take care

Take care signifies with a mind to the quality of the actions perceived by users. Signifies setting up a rapport, communicate a sense of belonging, respect and integration. Taking care of the visible also evidences faith in what is not visible (taking care of the details, own employees, transparency of own actions, etc.).

Ability to give back

Undertaking the responsibility of returning something to the community to which you belong. Being part of the value, the history, the customs, economies of a certain place. The role of mediation

¹⁶ The solutions proposed to reduce waste range from projects to introduce new behaviour in the domestic sphere to projects on education for recycling and waste banks in schools and offices. From sustainable shops to echo-interchange (promotion and sale of second hand products, repair and recharging services). From reducing packaging to communication strategies. From explanations on symbols and trademarks to involving chain distributors in organizing waste collection centres and services.

leads to creating a community of projects which shares the resources, suggestions and techniques of a team, establishing the dynamics of giving and taking, capable of reaping results.

Ability to co-operate

A project can be born from talent or good luck, but it needs a patient organizational construction, a variety of expertise, co-operation to produce value. Share rites and gestures. Consolidate trust and friendship. Living with a mnemonic heritage assets.

The identified tools, taken from the practice of experience and research, are criteria for approaching the project.

The proposed case stories are experiences of research in design processes like many others. The adopted tools refer to universally shared objective methods, be they personalized or personalizable. What unites them is something that has to do with memory and tradition, prefiguring a humanistic

attitude, often with the need to express emotions (ability to observe). From the project point of view, an interest in recuperating an Italian way to do design within a Latin tradition leads to understanding the products, objects at the various scales, as loaded with significance belonging to a specific culture, to a way of acting and way of thinking, to a system of habits (taking care, reaping results, ability to listen). To these considerations we would add the one which perhaps mostly binds the presented way of operating to Latin tradition: it is the dimension of co-operation, of being together, of rapports going beyond a formal relationship, which creates reciprocal trust, friendship; routine and gesture sharing, in the living together with a cultural heritage of resources handed down interpreted as an active mnemonic rapport (ability to listen, co-operation).

Identity is a construction; it cannot be inherited as changeless. It is a series of properties attributable to a certain community, to a culture and as such elastic. One the one side it should be conserved on the other it must be toned down¹⁷.

CULTURE OF PROCESS BASED ON THE REFERENCE FRAME // CULTURA DI PROCESSO BASATA SUL CONTESTO DI RIFERIMENTO

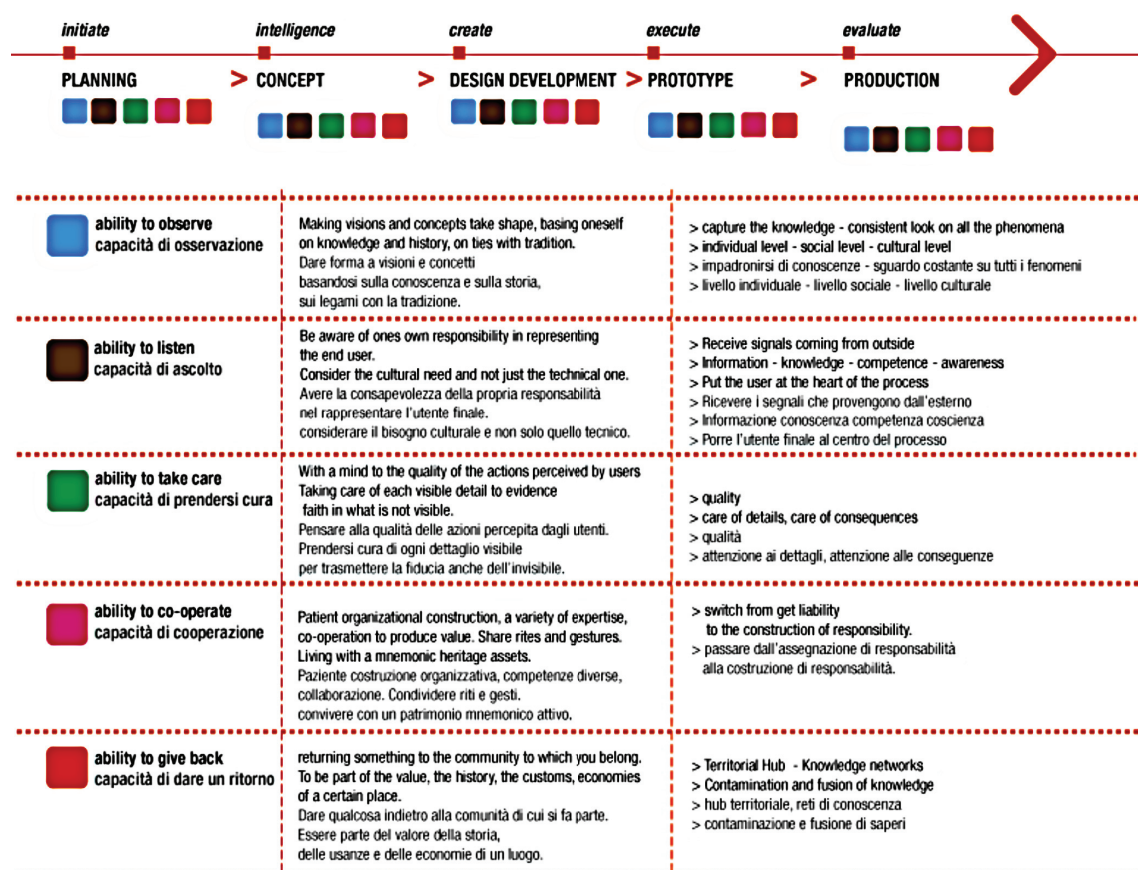


Figure 7. Scheme – Culture process, tools (RF).

¹⁷ Concluding reflections are related to the considerations made in the text: Fagnoni and Vannicola (2005, p. 1-4).

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