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**Reimagining the design in the
middle earth: From design driven
innovation to design boosted
cultural heritage**

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“Reimagining the design in the middle earth:
from design driven innovation to design boosted cultural heritage”

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Abstract: The present paper aims to discuss one possible dimension of crosspollination, the one emerging from the overlap between the domain of arts and that of management. This paper intends to investigate how a re-imagined design process of cultural-sensitive products, those with cultural codes embedded, could develop new avenues for business and social value, boosting as a long term value the Cultural Heritage's growth. More specifically, the present paper proposes the analysis and interpretation of an open innovation project launched by the Rijks Museum and joined by Droog. Using the data which emerged from this experience, the work proposes a model of sustainable cultural development, opening a new perspective on the relationship between cultural and creative industries.

Keywords: design, cultural heritage development, cultural codes, CCIs.

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1. Introduction

The present paper aims to discuss one possible dimension of *crosspollination*, the one emerging from the overlap between the domain of arts and that of management. This overlapping has started at the end of the nineties and is still going on, producing various areas of fertilization and stimulating a critical thought on the possible or actual relationship between arts and management (Scherdin, Zander 2011). The main pillars, on which the overlapping is based, are design, creativity, and entrepreneurship. These are at the same time the key words and the points of reference of a highly celebrated territory, a sort of a “middle earth” (Calcagno 2013) where the hybridization between arts and management takes place, creating new conditions of economic value, but also urging the management research to develop a critical thinking on the patterns through which this relationship comes true.

The first place of intersection is centered on the concept of design. From the first idea of design conceived as a process of production of artificial objects used in human life (Simon 1969), design moves from the realm of technical knowledge to that of creative thinking (Brown 2008; Kelley & Kelley 2011). This change takes place in two main conceptual stages. The first stage is marked by the idea of design as a process of sense making, adding new value to the product (Verganti 2003), while the second step focuses on the process of “design thinking” as a way to satisfy human needs (Brown 2008), using the creative potential embedded in all of us (Kelley, Kelley 2013).

The second place of intersection is the one that concerns the domain of creativity (Binnewies, Ohly, Sonnentag, 2007). Creativity is the magic word driving the management thinking towards a realm of innovation and success. Creativity is often confused with the concept of innovation (Osborne 2003) and is the object of desire for firms and organizations operating in many different fields of business. The combination of creativity and innovation introduces a third intersection, that between the worlds of arts and entrepreneurship. Both the artist and the entrepreneur seem to be characterized by a similar attitude towards risk and innovation, both of them being creative and innovative and feeling an urgency to act while they are able to envision the future in advance. The overlap between the two has further gained attention since the world of arts has lost the support of public funds, pushing the artist to search for new sources of finance through the experience of entrepreneurial patterns of work. This tendency stressed the double role of the artist, as a creative professional but also as an

entrepreneur and as a manager of a complex set of resources and competences (Scherdin, Zander 2011).

Given the emergent intersection between domains of arts and management, this paper focuses on the discussion of design process, one of these merging areas.

This process has been experiencing, before any other, a fatal attraction towards the cultural world and, at the same time, it has been the first one to use the cultural dimension to re-invent the concept of a product. Furthermore, the word “design” has a central meaning because it identifies a process of generation, which is at the same time an expression of creative thinking and also essential in any kind of entrepreneurial activity. Design is then the strategic axis on which the “middle earth” is based, the *file rouge* between art and management, the process shared among artists and entrepreneurs transforming a creative idea in a project of innovation.

In order to explore this idea, the paper will be based on the analysis of the case study of Droog, a design company based in Amsterdam and working on the fuzzy borders between arts and design.

Since its foundation Droog has been pioneering new directions for the design discourse, radically experimenting in the design of products, experiences, concepts and events.

More specifically, the present paper proposes the analysis and interpretation of an open innovation project (Chesbrough, 2003) launched by the Rijks Museum and joined by Droog. Using the data which emerged from this experience, the work proposes a model of sustainable cultural development, identifying an area of meaningful and promising cross-pollination between the worlds of culture and design, opening a new perspective on the relationship between cultural and creative industries.

2. From design as a technical process to design as a cultural experience

A first meaning of the word “design” can be traced back to Simon (1969), who defines design as the process of development of any artificial object used to satisfy a set of needs which do not find a solution in the realm of natural world. Design identifies, thus, a process of creation of artifacts, where the artifact is not conceived as a physical object (or not exclusively), but as any kind of conceptual solution to a specific human need.

The literature on product innovation, since Simon, has adopted an approach to the design process, which emphasizes the functional dimensions of the development of a new artifact or product (Ulrich, 1995; Ulrich, Ellison, 1999; Ulrich, Eppinger, 2011), referring to technology and market as the main drivers of innovation. On one side, a technology push approach aims to translate the technical improvements coming from a technological innovation in terms of new functionalities offered to the market. On the other side, the market driven approach aims to draw directly from the market the main requirements to be translated into functionalities of the new product.

The two approaches are based on opposite roots, the technology and the market, but both of them miss a common element: the aesthetic and symbolic dimension of consumption. In fact in both of them the product is exclusively intended as a bundle of functionalities satisfying a set of requirements, leaving to designers and marketing managers the role to wrap it up in an attractive packaging, being it a good design, a nice shape, or any other superficial condition used to attract the customer.

This approach comes to an end with the work of Verganti (2003; 2006; 2008), when design starts to play a new role, that of symbolic language (Blumer 1969). Technical and market innovations are then enriched through the process of construction of meaning suggested by Verganti and performed through the use of the design language. Innovation is then conceived as a process of technical and symbolic innovation, the result of an invention, that emerges from a process of social and cultural construction, which does not end with the introduction of new functionalities. Design driven innovations are those innovations which introduce new meanings and new languages, somehow innovating the user's experience.

The design driven model uses the concept of product experience, assigning the design the key role in the process and giving the entrepreneur the task to use her/his culture to make a proposal. This approach proposes a model of radical innovation descending from a breakthrough innovation of language and meanings, where market and technology must be interpreted using the cultural dimension. Design offers the entrepreneur the tools to play this social and cultural role. The model evokes a process of cultural construction, involving the firm with the entrepreneur and the designer, and identifying the design driven approach as a third and more successful strategy. Whereas the "technology push" does not properly consider the importance of the market and the "market driven" is a short arm strategy, doomed to follow the market requirements too closely, the "design driven" is that innovation which is capable to advance the requirements, to radically innovate the market and

to introduce a set of symbolic elements, which can be used to overpass major competitors¹. The model of design driven innovation emphasizes for the first time the importance of meanings and symbolic constructions, giving them the same relevance as functionalities and as technical performances. Nevertheless, the notion of culture evoked here is weak and instrumental. Culture is conceived as the social construction suggested by the entrepreneur and interpreted by the designer, while nothing is said about the world of culture meant as the world of arts and artists. In other terms, design driven innovation does not enter properly in the world of culture, but uses this dimension to evoke the symbolic side of the process of consumption, not exploiting all its potentialities.

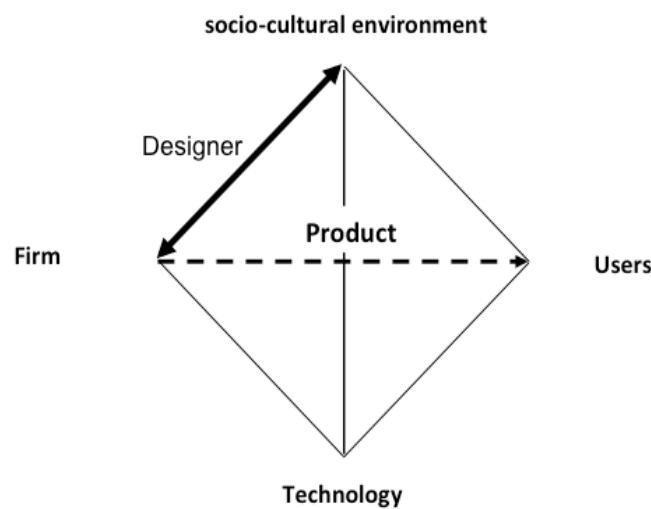


Figure 1: The socio-cultural dimension in the design driven approach.

As a final step, the design enters a new stage with the “design thinking” approach (Brown 2008; Calcagno 2013). Here the design goes back to the very essence of the process of innovation: finding the right solution to the customer’s needs. This is the way suggested by Tim Brown and Ideo, whose “design thinking” (2008) recalls the importance of involving the customer in searching the right solution to his problems.

Design is conceived as a language to solve problems, far from the idea of the aesthetic form of an object and also from the entrepreneurial proposal emphasized by Verganti. The designer is seen as a sort of a social researcher, who is asked to enter the market deeply, digging up the real needs of the customer. As in the previous approach, the word “culture” plays a crucial role. Culture is relevant

¹ Great examples of this new approach are the Swatch launch, many of the products offered by Alessi, the Metamorfoosi line of Artemide, and all the products, which were able to modify the process of meaning construction, radically influencing the user’s behavior and the process of consumption.

because of the relevance of cultural and social dimensions, explaining the behaviors of the customer. Without a deep understanding of social and cultural dimensions, needs could be satisfied only superficially, leading to short-sighted solutions. But differently from the design driven model, here the design is an open language, a tool to favor participation and user involvement, establishing a connection with the approach of collaborative innovation and opening to the world of shared creativity (Kelley, Kelley 2013).

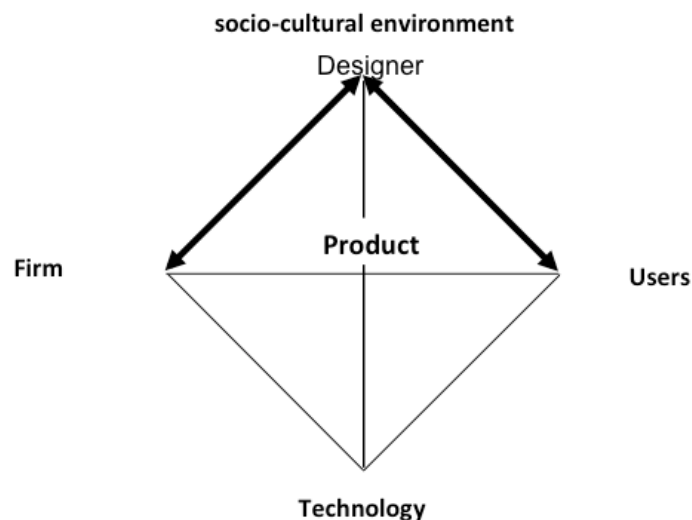


Figure 2: The socio-cultural dimension in the design thinking approach.

Are we able to identify a common trait emerging from the evolution of the concept of design shortly presented here? The common trait seems to be the identification of the cultural dimension as a driver of value, in addition to technology and market as in Verganti (2003; 2006; 2008) or as a deepening of the idea of market, as in Brown (2008). Culture becomes a crucial dimension in the “design driven” approach, where innovation is recognized as a social and cultural phenomenon created by the entrepreneur through the language of design. And culture becomes a platform of investigation, a root in which the specific customer gives value to her/his process of consumption.

Notwithstanding the emerging relevance of the cultural dimension, the perspective adopted in both the approaches uses the word *culture* as a synonymous of society, expressing the complex and social nature of our consumption processes. What remains in the backward is culture as a world of artifacts and competences, products and processes, values and heritage, in other words the Cultural Heritage (Bourdieu, 1986).

3. An alternative perspective on design

3.1 Antecedents, methodology and alternative paths: interpreting the project of Droog with the Rijks Museum.

The antecedents date back to the 8th of April 2013, during the “Fuori Salone del Mobile” (the international Furniture Fair), at the kick off event organized by the Dutch Consulate in Milan. On that occasion the authors first got in touch with new, fascinating objects, designed by Droog as a sort of “quote” of the masterpieces hosted by the collection of the Rijks Museum. The two objects were a small notebook, in a color, which explicitly referred to the Vermeer blue of the painting “The milk maid” (17th Century), and an unexpected tattoo referring to the “still life with flowers in vase” by Jan de Heem, also dated to the 17th Century.



Picture 1: Temporary Tattoo (by Droog, 2012). A 17th Century still-life painting of Jan Davidz de Heem has been reproduced as a tattoo letting the Museum meet street culture.

The observation of these small objects induced us to enter into a second research step, devoted to the investigation of the concept of design.

In the land of “middle earth”, design has been used as the connection between the cultural domain and the world of innovation. Either considering it from an aesthetical point of view or identifying it as the driver of a process of sense making, design is able to connect the world of culture to the world of business, adding unexpected values and new meanings to the product. This is evident in both the design-based approaches previously identified (Verganti 2008; Brown 2008; Kelley, Kelley 2013).

From this perspective, design derives its value from the cultural and artistic domain, transferring it into design solutions, which are incorporated in the product. In other words, design “exploits” culture to add value to the product.

After the first observation our questions were: Should we also consider the “vice versa” flow? Could design give value to the cultural and artistic domain? Is it possible to imagine a path, through which the design world could support the development of the Cultural Heritage?

We then started to elaborate the hypothesis that the design of meaningful objects, explicitly incorporating cultural codes, could boost the impact of culture on the external world.

The small notebook and the tattoo were the sparks inspiring this new vision, the first indications of a new possible frame. Should we expect a sequel?

We then entered into a third stage of the research, consisting of a further process of observation and of data collection in order to test our idea.

As a first indication, visiting the showroom of Droog at the Fuori Salone 2013 in Milan, we found out that the sparkling new products were the result of a collaboration between the Rijks Museum and Droog. In the occasion of its re-opening after a ten-year restoration, Amsterdam’s top museum launched the “Rijks Studio” official site, a ground-breaking online presentation of 125,000 artworks belonging to its collection². To celebrate this digital milestone the Rijks Museum approached several leading international designers, architects and artists asked to become pioneers of Rijks Studio, by selecting some pieces from the collection and using them creatively to produce a new artwork or a series of products. What sprang out from this collaboration was the “Masterpieces” collection designed by Droog.

² This public database now consists of over 200.000 digitalized high resolution images of the museum’s collection of artworks and historical artifacts. On the Riiksstudio website users can download them and start their own “studio”, modifying and reinterpreting the artworks; “for the Rijks Museum opening the collection broadens its impact and reach, by creatively engaging, the public with the works” (Ramakers, Jaworska, 2014, p.161).

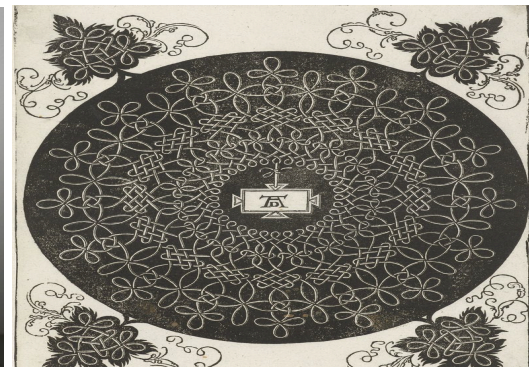
This project thus strengthened the idea that a process of innovation could be launched thanks to a proactive “use” of the cultural heritage. But there was something more than a path of re-functionalization of “centuries-old works reinterpreted in contemporary shapes, functions, techniques and materials” (Ramakers, Jaworska, 2014, p.161). The additional effect was the boosting of the connection of people, art and history and of the development of the Cultural Heritage through the communication of cultural codes (core of this path of design development).



Picture 2: Masterpieces (by Studio Droog) presented at the International Furniture Fair, Milan, 2013. Colours, shapes and details from centuries-old works by Vermeer and Dürer (16th and 17th Century) are transformed into contemporary products using materials such as rubber and titanium.



Picture 3



Picture 4



Picture 5

Pictures 3,4,5: Table Skin Embroidery (by deJongekalff 2013, Droog). A drawing of an embroidery pattern by Albrecht Durer (1507) is translated into a textured silicon tablecloth.



Picture 6: Pleated Collar

napking ring (by Studio Droog 2013). A historical ruff (c. 1615- c.1635) is translated into a napking ring, meticulously detailed through 3D printing.

After this first visit, one of the authors was invited to join a debate organized by Droog at their store and revolutionary concept “the one and only bedroom” Hotel Droog in Staalstraat 7, Amsterdam. The debate was centered around the idea of “The new original” and the relationship between copying and creativity³, an issue which emerged from a 2011 project when Droog⁴ partnered with the Today Art Museum of Beijing and the OCT Art and Design Gallery in Shenzhen, in the land of copycat culture. The debate was generous and intriguing.

Nevertheless, we maintained our perception that the “value issue” was not only the relationship between the original and its copy. Adopting what emerged as a new model of design-led-innovation, cultural regeneration could be realized through the design of artifacts incorporating specific culture codes. Our perception was that the core of this project was not only the innovative way of “copying”, but also the innovative function of the design: communicating cultural codes and developing Cultural Heritage, not just producing “new design” artifacts.

The process of observation continued with the visit to the new proposal of Droog during the recently held Fuori Salone del Mobile in Milan, where Droog presented the project “Rijks Studio

³ “Copying can lead to innovation...” when it means “... copying in an innovative way ...” which is when designers make an “... original interpretation of the original”. The result of this project is a collection of 26 works, “each piece translates an essence of the original in a creative way” (Remakes R, Jaworska A. 2014, p. 168-171)

⁴ And also Richard Hutten, Ed Annink, Stanley Wong and Urbans.

M2”, a setting for a studio in which the richness of the Rijks Museum collection resonates in walls, ceilings and furniture.

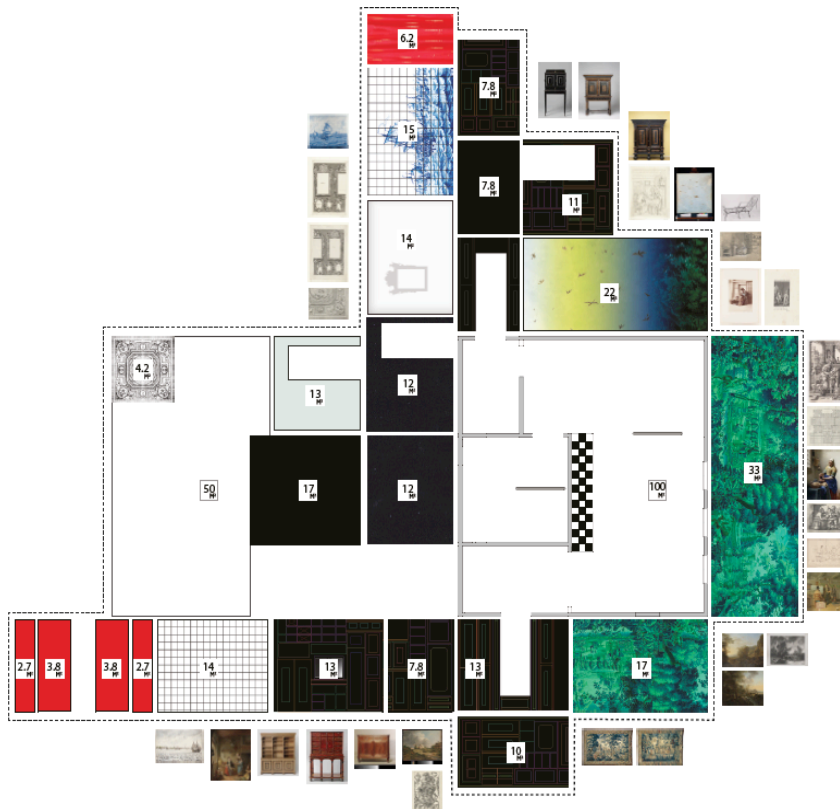
Observing this project, we were confirmed in our first hypothesis: we were enjoying an 18th Century tapestry transformed into wallpaper, an animated 17th Century landscape painting visible from the windows and a painting with birds and clouds as part of a reflective gradient wall in the bedroom. The pieces reflected the furniture as depicted in homely settings in famous paintings.














Picture 7: Rijks Studio M2 (by Studio Droog, 2014).



Picture 8: Rijks Studio M2 (by Studio Droog, 2014).



Picture 9: diagram Rijks Studio M2 (by Studio Droog, 2014)

	BK-16440-A		Park Landscape with Seated Couple and Resting Hunters, Fransçois Coppens, c. 1685 - c. 1740
	BK-16440-B		Park Landscape with Seated Couple and Resting Hunters, Fransçois Coppens, c. 1685 - c. 1740
	SK-A-1050		Landscape in the Gooi District of Noord-Holland, Jan Hulswit, 1807
	SK-A-49		Italian Landscape with View of a Harbor
	SK-C-109		Italian Landscape with a Draughtsman, Jan Both, oil on canvas, o.1650-1652
	RP-P-1911-5620		Storm, Martinus Antonius Kuytenbrouwer (jr.), 1831 - 1897
	BK-NM-1010-240-E		Dolls-house Ceiling-Painting of a Cloudy Sky with Birds, attributed to NicolaesPiemont, c. 1690 - c. 1709

Picture 10: legend Rijks Studio M2 (by Studio Droog, 2014)

Each step of the research was rooted in a process of observation of events, places and products, besides being supported by the collection of data from primary sources (interviews,

meetings and colloquia with managers and the president and co-founder of Droog). Any observation and interview was subsequently triangulated in order to discuss and let the critical points emerge. The incipient intuition that design could be used as a facilitator of culture development has been increasingly strengthened in the process of observations, conversations and insights collected from 2013 to 2014.

3.2 Towards a new model of innovation: design boosted Cultural Heritage.

In the first part of the research, the journey in the “middle earth” made us identify a new approach aiming at re-functionalizing design’s ability to create value by boosting culture and art. While in the approaches presented in the second paragraph, the world of art and culture is suggested as a possible antecedent of the symbolic dimension or as a dimension of knowledge to interpret the market, in our suggested path here, the world of art and culture uses the design as a driver to increase its value by communicating itself through the design of artefacts, thus reaching the external world in a more effective way, and reinforcing the Cultural Heritage at the same time.

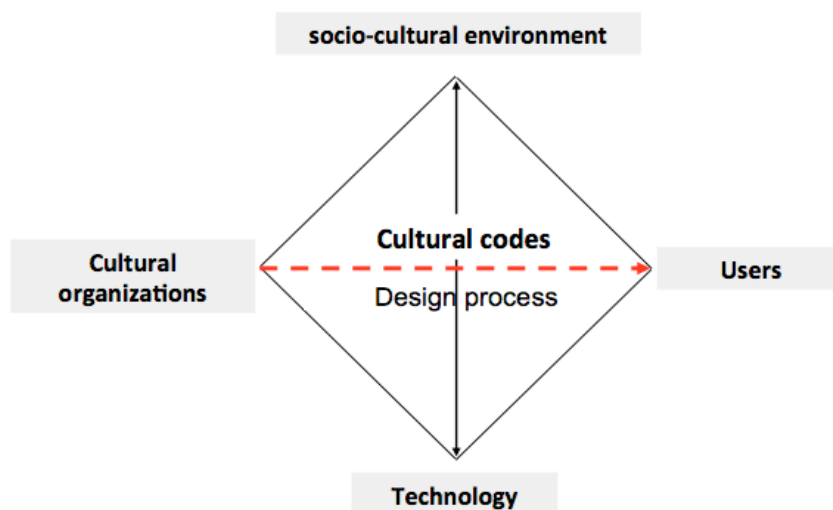


Figure 3: The process of the “design boosted Cultural Heritage”.

In the field of management studies, art and culture became key words to increase the appeal and improve the communication of the management disciplines. As in the marketing experience (Pine, Gilmore 1999), visual and performative arts played the role of attractive scenarios, in which the

management can show itself at the best once on stage (Calcagno 2013; Goldoni 2011). But these approaches floated on the surface and art remained an entertaining tool, not more than a beautiful wrap.

Art still has social power, being able to change the world, using unusual tools and opening the way to the unexpected (Meisiek, Haefliger, 2011).

It is not by chance that what we have investigated was encouraged by a cultural organization, the Rijks Museum of Amsterdam. In fact, its restoring has been transformed in an innovative moment by developing a new model to communicate art and history and to better reach the audiences⁵.

The model we propose aims at experimenting this pathway by using design to give a new value to culture with the synergic effect to regenerate it, connecting people, art and history.

3.3 Tentative conclusions and open reflections

As in the words of the British artist Brian Clark, “What I think art is about ... art opens a window onto an alternative reality ... so long as artists stand as the alternative, no matter what does that mean and no matter what it costs, we have a role and a function to fulfil”.

To pursue the development of new concepts, new competitive scenarios, and possibly new and sustainable business models, the world of art and culture has been used as a land of promising suggestions and valuable and creative thinking (Munari 1966; 1971; Horodner 2012). Nevertheless, the relationship still remains unclear and ambiguous. The crosspollination between the land of art and culture, and the world of business seems to still derive from a subtle form of exploitation, where the word culture becomes a brand to identify new products, promote events, and launch projects, with not such a high degree of innovation.

The degree of innovation of all these processes could descend from a process, which aims at finding new tools to communicate culture. One of these tools can be identified in products which result from a process of invention based on the interpretation of cultural codes embedded in our cultural heritage.

Finding a different inspiration in these words, we then propose to rethink the value of design management. Instead of using culture and art as magic words to endorse the product value (nesting

⁵ Mission: at the Rijks Museum, art and history take on new meaning for a broad-based, contemporary national and international audience. Vision: the Rijks Museum links individuals with art and history. <https://www.rijksmuseum.nl/en/organisation/vision-and-mission>.

culture into the product), we suggest to apply a vice versa approach: using the product to boost Cultural Heritage, to develop society’s knowledge and sensitivity about different kinds of art in order to attract customers to art and culture, and suggesting new ways to live the consumption experience.

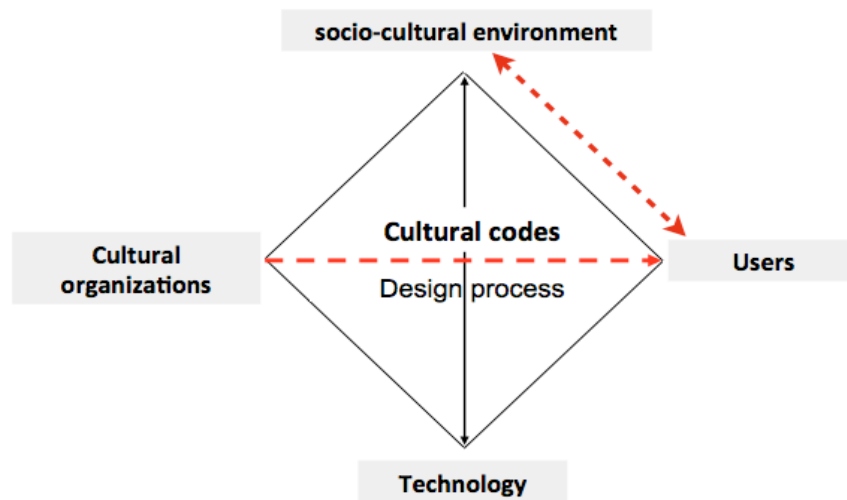


Figure 4: The socio-cultural regeneration through the design to boost Cultural Heritage.

Using culture as the catalyst for the “design boosted Cultural Heritage”, the paper proposes a regenerated and re-habilitated version of the “design driven innovation” (Verganti 2008), where design truly plays the role of a new approach of breakthrough thinking.

This path will transform the design language into a tool for Cultural Heritage cycle development, giving culture a way to pass through the products (using them as the shape for a new relationship with the customer), and at the same time interpreting the supposed relationship between cultural and creative industries. This relationship, more than a simple combination of different industries, can be based on a flow of communication, aimed to produce sustainable innovation, and having a social, cultural and economic impact.

We named this path “design boosted Cultural Heritage”⁶, trying to apply the invitation to “reimagining, rethinking, and reshaping” the future.

⁶ Or the “design to boost cultural heritage”.

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