



DIVERSITY:  
DESIGN / HUMANITIES

Latin Design Process

4<sup>th</sup> INTERNATIONAL  
FORUM OF DESIGN  
AS A PROCESS

SCIENTIFIC THEMATIC MEETING OF THE LATIN NETWORK  
FOR THE DEVELOPMENT OF DESIGN PROCESSES

ABSTRACTS

Proceedings of IV International Forum of Design as a Process, v. 1  
Sebastiana Lana, Rita Engler, Regina Álvares Dias (org.)



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**Proceedings of IV International Forum of Design as a Process, v. 1**  
Sebastiana Lana, Rita Engler, Regina Álvares Dias (org.)



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ESCOLA DE DESIGN UEMG  
MESTRADO EM DESIGN (PPGD)  
UNIVERSIDADE DO ESTADO DE MINAS GERAIS (BRAZIL)

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(Coordinator of the Latin Network, Politecnico di Milano, Italy)

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(Universidade de Aveiro, Portugal)

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(Universidade do Estado de Minas Gerais - UEMG, Belo Horizonte, Brazil)

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(Politecnico di Milano, Italy)

**Eleonora Lupo**  
(Politecnico di Milano, Italy)

**Salvatore Zingale**  
(Politecnico di Milano, Italy)

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(Universidade do Estado de Minas Gerais - UEMG, Belo Horizonte, Brazil)

**Danielly Tolentino**  
(Universidade do Estado de Minas Gerais - UEMG, Belo Horizonte, Brazil)

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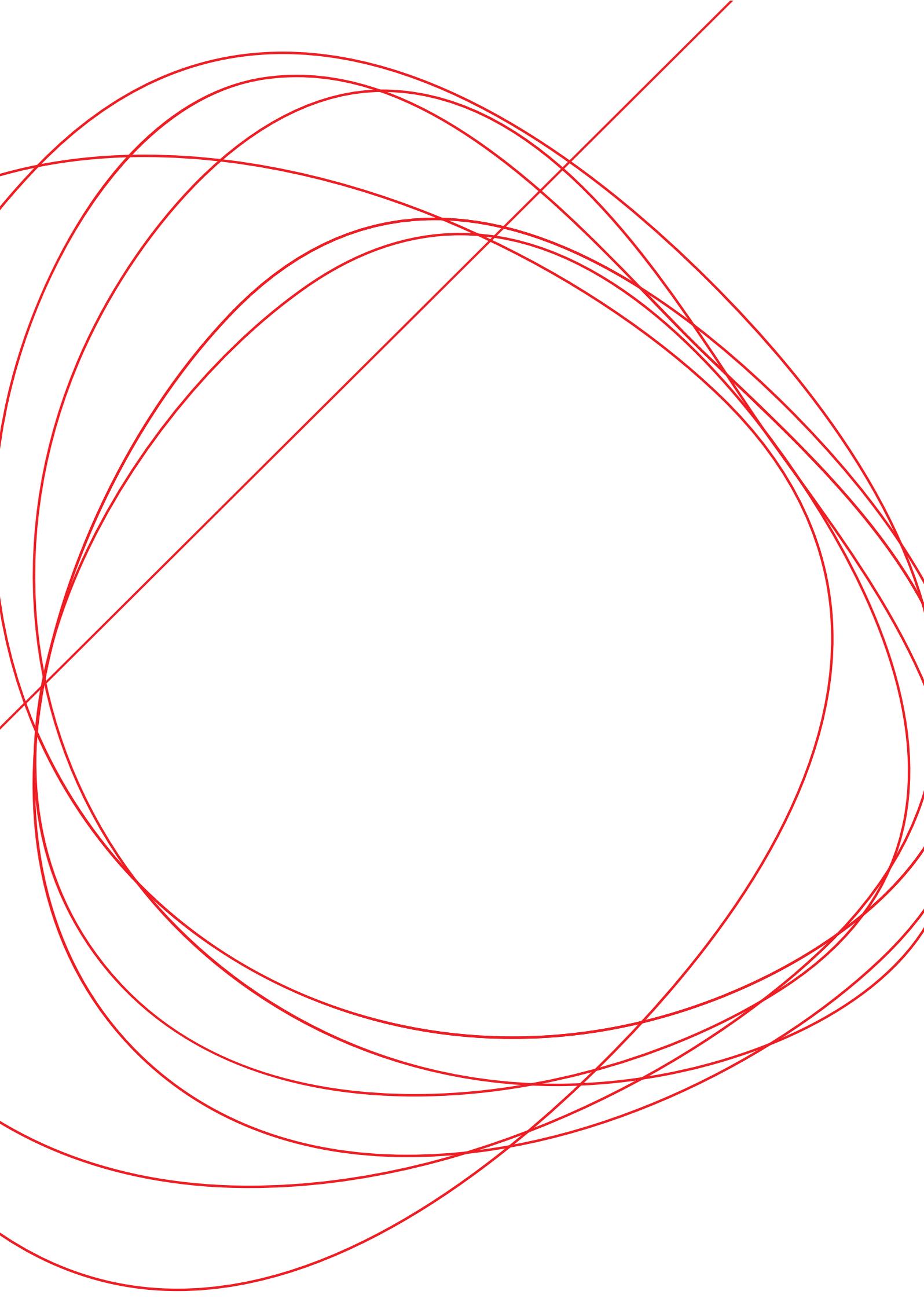
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# PRESENTATION

## **FLAVIANO CELASCHI**

(Coordinator of the Latin Network for the Development of Design Processes)  
Humanities Design Lab  
(Politecnico di Milano, Dipartimento INDACO)

## **DIVERSITY AS A CONSISTENTLY PROBLEMATIC AREA**

The Scientific Community of Latin Network for the Development of Design Processes investigates systematically the theme of DIVERSITY in design from the on-going comparison between the mainstream tendency of Anglo-Saxon imprint and the “other traditions”. The specific feature of this Community, and of its annual meeting, lies in placing design as a process, rather than as a product, at the centre of the debate.

The interplay between the demand for a common language and the insight to give importance to the many characteristic signals of the various traditions of design comes across another interplay between a few key words which dominate the international debate about the discipline and the need to focus on arising elements of the research, seen as having significant potential for innovation.

This is the general problematic area within, in 2012, the Latin Network intends to propose a reflection on DESIGN and HUMANITIES, integrating this beneficial relationship in the system of knowledge and opportunities known as the “THIRD KNOWLEDGE”, working as a bridge between the exact sciences and traditional humanistic knowledge.

## **DESIGN AND HUMANITIES AT THE CENTER OF THE DEBATE**

The fourth edition of the FORUM intends to focus on the “cultural” level of the design processes, identifying in the specific relationship between DESIGN and HUMANITIES (i.e. art, anthropology, aesthetics, neuroscience, semiotics, sociology, history, cognitive and perceptive psychology) a promising hypothesis to be explored as an innovative dimension of the processes themselves, in terms of the project’s contents and of their cognitive and operational tools and devices. Humanities and social sciences, in the crossed relationship they have with design and diversity, may be understood as:

- drivers and enablers of original design processes, created in the confluence between different disciplines in terms of didactics, research and the project itself;
- bearers of approaches, cognitive models and analytical tools within project themes with strong social and cultural contents (the so-called “Social Sciences and Humanities centered challenges”: education, intercultural dialogue, social innovation, certainty, type, identity...).

## OPEN QUESTIONS

The interplay between these three key words becomes the territory for our debate, which will take place at the Universidade do Estado de Minas Gerais (UEMG), in Brazil, within the programme of the 4th Bienal Brasileira de Design. For the event, given the thematic affinity, the Latin Network will also be assisted by the scientific contribution of the Humanities Design Lab (Politecnico di Milano, INDACO Department). The FORUM intends to focus on some key issues of the debate:

- What is the epistemological framework within which the relationship between design and humanities proves to be a current problematic area and a field of opportunities?
- Through which variations can the concept of diversity be interpreted in the relationship between design and humanities?
- Is there a multiplicity, in the specific relationship between design and humanities, that uses the processes of globalization, rather than opposing itself to them, and that may be diversified in a beneficial way?
- What are the research fields and the knowledge and research models about human complexity which design may connect with?
- What aspects of the design process may become the object of research in various fields of humanities and social sciences?
- Through which experiences have design and humanities shown the ability to collaborate effectively producing significant results?
- What is the state of the art of the theoretical debate? Through which promotion, research and diffusion frameworks (journals, associations, laboratories, etc.) is it being addressed? ■

# TRACKS

## **1. DESIGN AND HUMANITIES: A DISCIPLINARY COMPARISON**

Design is a human discipline par excellence and its “human” dimension is capable of spreading, with sensibility and responsibility, onto practices and processes. Humanities, which are “transdisciplinary” by vocation, research into the human abilities of creativity and inventiveness in order to understand the meaning of social action, to interpret it and, if possible, to direct it. This synergy may become a tool for disciplinary innovation with consequences for research and training.

This section seeks to explore the way in which the processes of the two disciplinary fields renew themselves through this interchange and, thus, gain new theoretical, operational and diffusing devices.

## **2. FOR A “HUMANISTIC” DESIGN: DESIGNING FOR DIVERSITY**

The complexity and social and cultural richness of the contexts in which a project should take part makes a humanistic approach more useful in giving quality to the form of artifacts, spaces, services and connections. This section seeks to explore design experiences in different contexts and subjects with strong cultural content and/or where the process used a humanistic approach, highlighting specific applications and variations for each case.

## **3. HUMANITIES CENTRED INNOVATION**

The value of humanistic knowledge as basic research or meta-design (i.e., a research focused on the project) is often considered difficult to apply in the project’s general innovation systems. However, it is advisable to promote a profoundly “different” concept of innovation, which encompasses not only technological and organizational, but also cultural and humanistic processes, in companies and industries. This section seeks to explore possible paths and trajectories for a better integration between disciplines throughout the entire project’s value chain, through concrete examples of applications, projects and researches in which humanities and social sciences intercept the systems of production (company) and of use (community, users).

#### **4. THE DESIGNER HUMANIST AND THE HUMANIST DESIGNER**

In the age of hyperspecialization, even the designer's professional figure must have the ability to rethink and enrich itself. The comparison with humanities and social sciences may contribute to define this process in a bidirectional dynamic. This section seeks to question the existence of professional profiles created from the implementation of this relationship in terms of process, also through considerations of a historical-critical nature. What are the specificities? Which are the referential contexts? What are the areas in which to practice this hybridization? What are the outcomes? Diversity is, therefore, understood as a specific variation of the profession that the world of design is called upon to value in a process that finds its own strength in the richness of articulation and in a constant ability to adapt and change.

#### **5. DESIGN AND HUMANITIES: DIVERSITY AS IDENTITY**

This section seeks to put the relationship between design and humanities up for discussion: Do humanities define the value frameworks which describe the socio-cultural contexts that the project uses in an "uncritical" way as sources, or does the project develop questioning processes and tools and outcomes which, in turn, influence such contexts?

#### **6. THE SCHOOL TALKS ABOUT ITSELF**

Since the 2010 edition, the FORUM has opened a space totally dedicated to the experiences and research of the host school, in order to give visibility to the contents and create a beneficial dialogue with the representatives of the international community present at the event. ■

# WELCOME ADDRESS

## **DIJON DE MORAES**

Member of the Scientific Committee  
Rector of Universidade do Estado de Minas Gerais - UEMG  
Belo Horizonte, Brazil

The Scientific Community of Latin Network for the Development of Design Processes is a network of researchers and institutions that focuses its work on the analysis of design as a process, rather than a product, and shares and debates their experience and studies in an annual meeting. This year, the community explores the topic of DIVERSITY as a cultural and disciplinary value that has to be preserved and enhanced.

The meeting takes place in Brazil for the second time, but now in Belo Horizonte at the Universidade do Estado de Minas Gerais (UEMG), within the program of the 4th Bienal Brasileira de Design. The edition of the FORUM is greater in the reflection on DESIGN processes and HUMANITIES, an approach that makes artifacts, spaces and services more connected with us, as human beings, and generates innovation through the exchange of their cognitive and operational tools and devices.

First of all, as a member of the Scientific Committee, I would like to thank to all the others members for their effort and disposition, they are: Flaviano Celaschi, Raquel Pelta Resano, Rui Roda, Roberto Iñiguez Flores, Paulo Belo Reyes and Sebastiana Lana. Also, I appreciate the work, support and collaboration of the Humanities Design Lab of the Politecnico di Milano (Italy).

My sincere thanks to all reviewers, the Scientific Secretary and Organizing Committees which consists of Elena Formia from the Politécnico di Torino, Rita Engler, Giselle Hissa Safar, Mariana Misk, Regina Álvares Dias and Danielly Tolentino from the Universidade do Estado de Minas Gerais.

And finally, I would like to thank to all professors and students of the Universidade do Estado de Minas Gerais, who are supporting the organization of the event and who I hope will live an enriching and inspiring experience.

The 4th International Forum of Design as a Process will be joined by scholars and academics from different countries: Italy, Portugal, Spain, Mexico, Colombia, United States, United Kingdom, and Brazil. Underwent more than 200 jobs to select 80 oral presentations, more 6 guest papers, for Track 6 "The UEMG talks about itself" were selected 22 papers, 30 posters (research, extension and design), and 5 keynote speakers invited: Deborah Philips, Gui Bonsiepe, Silvia Fernández, Lucy Niemeyer and Maria Cecilia Loschiavo dos Santos.

The topic of the FORUM is “DIVERSITY: DESIGN/HUMANITIES”. There are 6 tracks:

1. Design and humanities: A disciplinary comparison
2. For a “humanistic” design: Designing for diversity
3. Humanities Centered Innovation
4. The designer humanist and the humanist designer
5. Design and humanities: diversity as identity
6. The UEMG talks about itself

The first five tracks have different points of view of the main topic of the FORUM: Diversity. Several lectures will be presented related to each track. The last one, the 6th, is about the experience and research of the Universidade do Estado de Minas Gerais, with the purpose of highlighting the work of the professors and students of the school and also enhance it with the external experiences of the all the participants present at the event.

Welcome all to The 4th International Forum of Design as a Process. I hope this experience in Belo Horizonte will be enriching for all of you in every possible way. ■

# KEYNOTE SPEAKERS

## DEBORAH PHILIPS

Prof. Deborah Philips has published on the narratives of television, carnival and post-war women's fiction and has a particular research interest in the conventions and structures of the stories employed in popular culture and in everyday life. She has previously developed Creative Writing Groups in a psychiatric hospital and written on the therapeutic potential of writing in a mental health context. Deborah also has a background in journalism and publishing, as a writer and as an editor of *Women's Review*. Her recent relevant publications include: *Writing Well: Creative Writing and Mental Health* (with Debra Penman and Liz Linnington) (Jessica Kingsley, 1998); *Brave New Causes* (with Ian Haywood) (Cassell, 1999); and *Writing Romance: Women's Fiction 1945-2005* (Continuum, 2006).

— [d.philips@brighton.ac.uk](mailto:d.philips@brighton.ac.uk)

## GUI BONSIPE

He studied at the University of Design (hfg), Ulm (Germany), working later as a teacher and researcher at the same institution. He holds a doctorate honoris causa from the State University of Rio de Janeiro (UERJ, in 2001), Technical University Metropolitan of Santiago, Chile (2005) and the Autonomous University of Mexico (2011). He worked as a consultant to international organizations, public institutions and private companies in several Latin American countries. In 1981 he was hired by CNPq. From 1983 to 1987 he was the creator, organizer and coordinator of LBDI (Brazilian Laboratory of Industrial Design), in Florianópolis - SC. Coordinator of the master's program in information design at the University of the Americas "UDLA," Puebla (Mexico). Professor of interface design at the University of Applied Sciences, Köln. He is the author of several publications, among them: *Teoria e pratica del disegno industriale* (Giangiacomo Feltrinelli, 1975, Italy); *Diseño industrial, tecnologia y dependência* (México Edicol, 1978, Mexico); *A tecnologia da tecnologia* (Edgar Blücher, 1983, Brazil); *Dell oggetto all'interfaccia* (Giangiacomo Feltrinelli, 1995, Italy); *Historia Del Diseño en América Latina y el Caribe*, in together Silvia Fernández (Blücher, 2008, Brasil); e *Design, cultura e sociedade* (Blücher, 2011, Brazil).

— [www.guibonsiepe.com](http://www.guibonsiepe.com)

— [gui.bonsiepe@guibonsiepe.com](mailto:gui.bonsiepe@guibonsiepe.com)

## SILVIA FERNÁNDEZ

Graphic designer, teacher and researcher at the Universidad Nacional de La Plata (UNLP). Acts as a consultant to government agencies. In 1991 creates the Studio SF Diseño, which develops imaging programs and public communication. Currently, she coordinates the research group Node (Node Diseño Latin America) with headquarters in Buenos Aires. She is the author of the book *Historia Del Diseño en América Latina y el Caribe*, in together Gui Bonsiepe (Blücher, 2008, Brasil).

\_\_\_\_\_ [nodaLar@nodalatina.net](mailto:nodaLar@nodalatina.net)

## LUCY NIEMEYER

Graduated in Industrial Design from the Universidade Estadual do Rio de Janeiro (1972), Degree in Teacher Training in English Education from the Faculty of Arts and Letters of Notre Dame (1985), Masters in Education from the Universidade Federal Fluminense (1995) and Ph.D. in Communication and Semiotics from the Universidade Católica de São Paulo (2002). Did her postdoctoral training in the Graduate Program in Design at PUC-Rio. Currently an adjunct professor at the Universidade Estadual do Rio de Janeiro and the Pontifícia Universidade Católica do Rio de Janeiro. Procientist UERJ and coordinates the Laboratory Multidisciplinary Critical Thinking in Design: Studies, Research, Events and Production Design, Culture and Philosophy (LABCULT). She has experience in projects, research and teaching of Design, with emphasis on Applied Social Sciences, mainly in the following subjects: semiotics, product design communication, comfort. Author of several books, among them: *Elementos de semiótica aplicada ao design* (2003), *Tipografia: uma apresentação* (2000) e *Design no Brasil: origens e instalação* (1999).

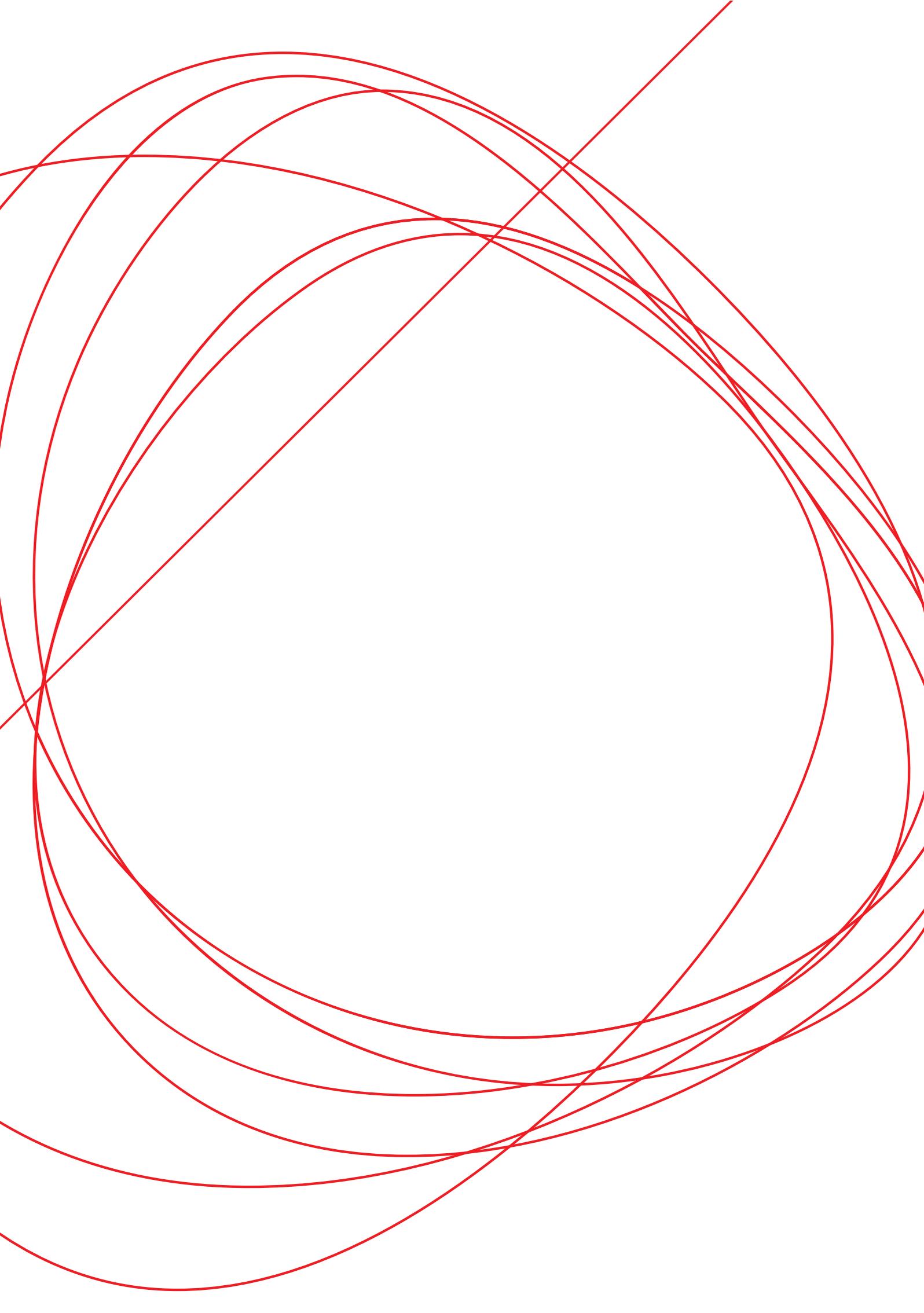
\_\_\_\_\_ [www.esdi.uerj.br](http://www.esdi.uerj.br)

\_\_\_\_\_ [lucy@esdi.uerj.br](mailto:lucy@esdi.uerj.br)

## MARIA CECILIA LOSCHIAVO DOS SANTOS

Philosopher and an associate professor of Design at the School of Architecture and Urbanism, University of São Paulo. She got her MA at Universidade de São Paulo, Philosophy, in Aesthetics, 1975 and her Ph.D. at the Universidade de São Paulo, Philosophy, in Aesthetics, 1993. She was a visiting scholar in postdoctoral programs at the following universities: University of California, Los Angeles. School of Public Policy and Social Research, 1995-96; Universidade de Campinas, Brazil, Institute of Philosophy and Human Sciences, 1997; Nihon University, Tokyo, College of Design and Arts, 1999; Canadian Center for Architecture, Montreal, 2001. Published many articles in brazilian design magazines and international academic conferences. Author of several books, among them *Móvel Moderno no Brasil*, which was sponsored by FAPESP and a joint publication of the Universidade de São Paulo Press and Studio Nobel in São Paulo. Scientific consultant for Brazilian Research Agencies, such as FAPESP and CNPq. Currently she is the co-ordinator of the Workshop of Social Design at the Institute of Advanced Studies, at the University of São Paulo. Current research about Discarded Products, Design and Homelessness in Global Cities and she is deeply committed to design and social responsibility issues. Awarded the First Prize by the Museu da Casa Brasileira, for her book *Móvel Moderno no Brasil*. Screenwriter of the documentary movie *A Margem da Imagem* (On the Fringes of São Paulo: Homeless) which concentrates on themes such as social exclusion, unemployment, alcoholism, insanity, religiousness, contemporary public spaces, urban degradation, identity and citizenship. The film was officially selected for the São Paulo Short Film Festival 2002. The film was awarded the "Best documentary" film at the Gramado Film Festival, 2003.

\_\_\_\_\_ [www.closchiavo.pro.br](http://www.closchiavo.pro.br)  
\_\_\_\_\_ [closchia@usp.br](mailto:closchia@usp.br)



# TRACK 1

## **DESIGN AND HUMANITIES: A DISCIPLINARY COMPARISON**

Design is a human discipline par excellence and its “human” dimension is capable of spreading, with sensibility and responsibility, onto practices and processes. Humanities, which are “transdisciplinary” by vocation, research into the human abilities of creativity and inventiveness in order to understand the meaning of social action, to interpret it and, if possible, to direct it. This synergy may become a tool for disciplinary innovation with consequences for research and training. This section seeks to explore the way in which the processes of the two disciplinary fields renew themselves through this interchange and, thus, gain new theoretical, operational and diffusing devices.

Total of selected papers  
on this topic: 37 papers

**Humanities centered innovation through International design competitions: original research on utilizing the diversity of designers for culture oriented result driven design competitions**

——— Onur Mustak Cobanli

**Modernist designs, social and aesthetic objects that speak of mentalities, ideologies and attitudes in textile patterns**

——— Rui Gonçalves and Alberto Cipiniuk

**Perceiving a company’s identity as an individual personality**

——— Nora Karina Aguilar Rendón and Jose Luis Hernandez Azpeitia

**Design and public interest**

——— Matheus Alberto Ramos de Freitas and Renata Marquez

**Experimentation as a procedure in design education: diversity, innovation and discovery as human learning responses**

——— Myrna de Arruda Nascimento and Giorgio Giorgi

**Art education and critical reading in design**

\_\_\_\_\_ Marisa Maass

**Contemporary design and other worlds: an anthropological relationship between the shamanic magic and Brazilian design**

\_\_\_\_\_ Rosane Badan

**Design for a (more) human world**

\_\_\_\_\_ Ingrid Moura Wanderley and Maria Cecilia Loschiavo dos Santos

**Graphic design in media activism: from advertising to adbusting**

\_\_\_\_\_ Carla Andrade M. de Oliveira and Vera Lucia Nojima

**The design higher education and the relationship with the territory, the community and the local culture**

\_\_\_\_\_ Marcelo Amianti and Luigi Bistagnino

**Design and semiotics in dialogue**

\_\_\_\_\_ Ione Maria Ghislene Bentz

**Ranking in design projects: from quantity estimation to quality assessment: an advanced design approach to evaluation of design projects and research**

\_\_\_\_\_ Flaviano Celaschi e Massimo Bianchini

**User design approach applied to interactive digital art projects**

\_\_\_\_\_ Virginia Tiradentes Souto e Fátima Aparecida dos Santos

**Iconology as a matter of design between information visualization and artistic approach**

\_\_\_\_\_ Raffaella Trocchianesi and Paolo Ciuccarelli

**Relevant factors to researches on the affective relationship user-product**

\_\_\_\_\_ Shirley Gomes Queiroz, Leila Amaral Gontijo and Lais Cristina Licheski

**Photography in contemporary design**

\_\_\_\_\_ Patricia Spineli and Olympio José Pinheiro

**Consumption, design and memory design: retro aesthetics and memory objects**

\_\_\_\_\_ Sérgio Antônio Silva and Rita A.C.Ribeiro

**Taking down walls and building bridges**

\_\_\_\_\_ Evandro Renato Perotto

**Design as inventive process: the contribution of design semiotics**

\_\_\_\_\_ Salvatore Zingale

**Exhibition design as act of direction towards a cultural convergence project**

\_\_\_\_\_ Marco Borsotti

**Hybrid methodology for social & digital space design: user experience & interaction models design based on human science & user-centered**

\_\_\_\_\_ Letizia Bollini

**Seeking a conceptual framework for researching (or carrying out) projects with small craft groups**

\_\_\_\_\_ Mônica Maranhã Paes de Carvalho and Alfredo Jefferson Oliveira

**Maximising the potential of academic design research: blending scientific, and social sciences practices for improved pattern recognition and validation**

\_\_\_\_\_ Gabriel Patrocinio and Simon Bolton

**Semiosis as a process in product design: case study on the development of an experimental urban micro environment for relaxation**

\_\_\_\_\_ Raquel Klafke, Felipe Massami Maruyama, Evandro José de Almeida and Anderson Vinicius Romanini

**The contribution of “Future Studies” and computer modelling in the origins of the sustainable design debate: the role of the limits to growth report**

\_\_\_\_\_ Pier Paolo Peruccio

**The humanistic discourse in design**

\_\_\_\_\_ Evandro Renato Perotto

**Design and semiotics in the construction of scenarios**

\_\_\_\_\_ Paulo Bittencourt, Ione Maria Ghislene Bentz and Paulo Belo Reyes

**The painted letter: condition and destiny of the typographic image in the contemporary art work**

\_\_\_\_\_ Noni Geiger

**Vernacular design and sustainability in traditional communities**

\_\_\_\_\_ Marília Riul and Maria Cecilia Loschiavo dos Santos

**The brand DNA process approach as motivational factor in setting the identity and brand management**

\_\_\_\_\_ Helder Cardoso and Richard Perassi

**Design & anthropology: an interdisciplinary proposition**

\_\_\_\_\_ Zoy Anastassakis

**The contribution of humanistic psychology to human-centred design: the concepts of Carl Roger, Alfred Adler, Carl Jung and Christopher Bollas for understanding users as individuals**

\_\_\_\_\_ Denise Dantas

**Visual tools for humanities research: design and the digital humanities**

\_\_\_\_\_ Giorgio Caviglia, Paolo Ciuccarelli e Catherine Nicole Coleman

**Self-production: a human centered design process**

\_\_\_\_\_ Francesco Mazzarella

**Design meta-theory: brazilian perspective**

\_\_\_\_\_ Marcos Beccari and Marcio Silva

**Symbol articulation: a communicational perspective to philosophy of design**

\_\_\_\_\_ Marcos Beccari and Marcio Silva

**Designing and managing social innovation: an interdisciplinary approach on how design-based action can help communities to promote sustainable change**

\_\_\_\_\_ Eduardo Staszowski

TRACK 1  
selected papers

## Humanities centered innovation through international design competitions: original research on utilizing the diversity of designers for culture oriented result driven design competitions

**Onur Mustak Cobanli**

PhD student, Politecnico di Milano, Italy

\_\_\_\_\_ omcdesign@gmail.com

Each passing day, the world is becoming more global meaning the values of different cultures are merging together to a unified global culture, on one hand, this infusion creates opportunities to design products and services, that due to globalization; everyone in earth could use, while on the other hand, this unified approach to product and service development leads to rejection of products and services where cultural heritages still play an important role.

On one part of the picture we see that while companies try to become global players, the concept of serving the needs of local while keeping global; being glocal has become of importance, thus, products and services are re-thought and re-designed to fit the sub-cultures and different and diverse nationalities they are referring to. On the other part of the picture we see that companies which cannot localize their products or services due to production or supply chain constraints try to create a “world-infusion” design mix, which hopefully would apply to all users in the target segments.

Meanwhile, due to the development of online platforms and interactive tools, companies discovered how to use “Design Competitions” to arrive at design solutions and innovations, which replaces country-specific design consultancy and gathers data and results directly by relying on the diversity of designers.

Given all these, This article discusses: 1. How could design competitions be utilized to create “world-infusion” products and services i.e. by utilizing the diversity of designers. 2. How could design competitions be used to arrive at “localized” products. 3. How design competitions could be used to gather statistical data regarding the preferences of end-users within a specific country, territory or geographical region. 4. How could design competitions be used for value chain design and innovation creation.

Methodological approach used for original research: Case Study, Statistical Analysis, Survey, Observation.

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## Design meta-theory: brazilian perspective

### Marcos Beccari

Graduate student, UNIBRASIL – Faculdades Integradas do Brasil, Brazil  
\_\_\_\_\_contato@marcosbeccari.com

### Marcio Silva

Universidade de Brasília, Brazil  
\_\_\_\_\_marciorps@gmail.com

We're concerned about understanding ways of thinking about design. That is thinking about thinking, theory of theories, or meta-theory. At some level, this kind of questioning is always present ("Why do I believe whatever it is I do believe in?") but it's safe to say a whole decade into the 21st century the field of design still lacks a reflexive understanding of its ways of thinking.

One of the most important contributions to this understanding is Terence Love's 2000 article "Philosophy of design: A metatheoretical structure for design theory" (LOVE, 2000). His structure is a hierarchy of abstraction levels, each more comprehensive than the previous. Therefore it can be used as a measure of the activity and approach of a given theory of design.

What we are dealing with, then, is not exactly one theory, but different bodies of theory. Those can then be understood like Thomas Khun's idea of "Paradigms", each body of theory incorporating not only explicit ideas but also implicit worldviews and value attributions. Those bodies of theory or paradigms interact to varying levels. Love's assumption is that this level of interaction is still not enough to be useful, to permit those paradigms to work as guidance and orientation to the practice of design. That is why he tries to provide a meta-theoretical analysis, since without this broad reference it becomes hard to discern how and why each paradigm differ from the others.

Departing from Love's attempt to map the universe of design paradigms, we have used the meta-theoretical structure to compare widely recognised groups in Brazil. Of course, most of the important authors do not subscribe blindly to each specific paradigm, even when they are clearly aligned to it, but that most likely is a consequence of the constant state of flux in design theory. Therefore we feel that a less precise approach to this characterisation, bypassing Love's quantitative methods, can already show conflict points between the many groups and, hopefully, suggest possible translations.

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## Symbol articulation: a communicational perspective to philosophy of design

**Marcos Beccari**

Graduate student, UNIBRASIL – Faculdades Integradas do Brasil, Brazil

\_\_\_\_\_ contato@marcosbeccari.com

This work comes from our research conducted in the context of master's degree (PPG-Design UFPR, 2012) and intends, as a form of opposition and contribution to the entitled Philosophy of Design (LOVE, 2000), a new paradigmatic approach of design focusing on the articulation of symbolic experiences. We consider the design as an inherent potential in man, since the achievement of this potential is one of his communication needs.

Backed by the perspective of Flusser, among others authors, we understand design in an ontological sense, as an action integrated into a social interaction. Every person grows in a social reality, in whose needs and cultural valuations are shaped and confronted two poles of a same relationship: the subjectivity that represents the potential of an individual, and the design work that will be the realization of this potential within an intersubjective circumstance.

Connecting these spheres, the designing corresponds to a fictional narrative, a symbolic reconfiguration (formal and expressive) of an experience that will be communicated. Whatever may be the ways and means, when we do design we are reordering shapes (here understood as structures not restricted to the visual image). Any shape is a way of communication and, at the same time, a way of subjective establishment.

What we call "reality" is the result of a subjective experience, in other words an individual circumstance. This "reality" can be experienced and understood only within a subjective sphere. But when our reality is translated to other persons, our reality acquires new meanings, as well as the reality of the other persons. And in this interpersonal exchange, we are creating, expanding and propagating different realities. Design is to articulate realities. Hiding and at the same time revealing one or other reality is what we do as designers.

We aren't isolated in our individual worlds, but we are participating in an intersubjective world, with the possibility to extend it. In this sense, design represents the possibility of we become "coauthors" of reality, participating on the various fictions that are being experienced around us, reshaping them and expanding them. From this view, we consider pertinent support and structure the process by which the design as symbol articulation happens. Thus, the aim of this study is to present certain relations through which we can contemplate the design as a performance of symbolic feature – a communicating and a configuring of man.

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## Modernist designs, social and aesthetic objects that speak of mentalities, ideologies and attitudes in textile patterns

**Rui Gonçalves**

PhD student, Pontificia Universidade Católica do Rio de Janeiro, Brazil

\_\_\_\_\_ ruihogoncalves@ig.com.br

**Alberto Cipiniuk,**

PhD, Pontificia Universidade Católica do Rio de Janeiro, Brazil

\_\_\_\_\_ acipiniuk@gmail.com

This article arose from discussions on the constitution of Design as a field of knowledge, in the Doctoral Program at PUC-Rio. For Bourdieu a discipline is defined by possession of a collective capital, specialized methods and concepts whose domain is the admission requirement in the field of disciplines, and its position in space depends on the principles of differentiation between disciplines, among the most important is the amount capital resources that accumulated resources and in particular theoretic-formal (2004: 92). In this regard collaboration as an expansion of the theoretical and formal discipline of Design, we propose to analyze the performance of Modernist Designs-Artists (who worked in the early twentieth century both as an artist and designer) between 1910-1939, in textile design, beyond the sight of the history of art that tries to connect this production as an attempt the “creative genius” in experimenting with new media, which relegated the status of mere appendix cultural, and seek support in theoretical sociology and social history to look at these designs, or any design object, such as aesthetic objects that telling about society (Becker, 2009).

We will discuss the process of aestheticization of designs, from “artification” strategies (Schapiro, 2007) led by Designers-Artists, in the beginning of twenty century, using the field of art (Bourdieu 1996) to justify their creations. We aim to understand these designs as social objects, so we start from the observation of Adrian Forty (2007) that the designs of goods is also the history of society, and as aesthetic objects, in Burke point the view (2004: 99), reveal or imply about the ideas, attitudes and mentalities.

In the second stage we analyze how these designs were taken as objects of distinction (Bourdieu, 2007) by customers of haute couture and to the attempted insertion of these objects in the project of social construction of post-revolution, in the case of the Russian Constructivists. Lastly to propose that these designs, treated as frames, constitute ways of thinking and reports of the social world, we turn to social history of art, more precisely the methodological procedures of Baxandall (2006), in order to analyze this production in search of historical factors that enable the understanding of the history of thought of the Designer-Artist culminating in the product.

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## Perceiving a company's identity as an individual personality

**Nora Karina Aguilar Rendón**

Universidad Iberoamericana, Mexico

\_\_\_\_\_ karina.aguilar@uia.mx

**Jose Luis Hernandez Azpeitia**

Universidad Iberoamericana, Mexico

\_\_\_\_\_ jose.hernandez01@correo.uia.mx

The objective of this paper is to integrate perspectives from neuropsychology and sociology view with graphic design in order to analyze one of the most important niches in corporate communication: the so called "Corporate Image", now referred to as Visual Identity Systems.

A human sciences focus permits the designer to create an analytic framework for visual identity design with a systemic point of view. This is achieved by treating corporations as individuals with their own character and identity features. In the receptor's mind "the other" is always perceived as an individual. By taking this into consideration, the designer can create more efficient communication strategies for projecting the corporation's identity.

An identity-oriented perspective allows a holistic solution for the corporate image and communication problematic, moving beyond a simplistic approach where corporate identity elements are considered mere objects for production or default messages broadcast by a corporation. In this way, the designer can develop integral communication strategies compromised of specific symbolic and visual elements within a particular cultural context, as well as framing a coherent set of identity-related symbols acknowledged by both the corporation and the receptors.

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## Design and public interest

### Matheus Alberto Ramos de Freitas

Universidade Federal de Minas Gerais, Brazil  
\_\_\_\_\_ matheusramosfree@gmail.com

### Renata Marquez

Doctor, Universidade Federal de Minas Gerais, Brazil  
\_\_\_\_\_ renamarquez@gmail.com

The aim of this paper is to discuss the state of design in Brazil taking into account its complex socioeconomic context. The discussion will depart from the study of a specific historical moment of critical understanding of the social processes that disseminated design, when Lina Bo Bardi acted and imagined the practice of design in Brazil researching the handmade creations outside the Rio - Sao Paulo axis and thinking about the design from the popular culture of the Northeast. Based on the profound analysis of the history of Brazil and its civilizing decisions, she looked for other ways to produce objects and spaces and for other cultural activities of the designer, approaching the thought that today we might call counter-hegemonic. The article aims to show how the investigation of Lina can be considered a cartographical essay of what sociologist Boaventura de Sousa Santos calls "epistemologies of the South", a need for expansion of legitimate forms of knowledge and for post-abysal coexistence of producing modes, ie, against the "global cognitive injustice." Lina engages the dialogue between popular culture and artistic and technical knowledge from the experience of contacting the people of the Northeast and the expressive production of the pre-craft. "To deeply dig a civilization, the simpler, the poorest, to reach its popular roots, is to understand the history of a country. And a country where the base is the culture of the people is a country of enormous possibilities", she wrote. What is the current role of Brazilian design facing these issues? This paper seeks to study Lina's point of view about Brazilian design and to speculate about its applicability in today's context. The research process included a trip to the Northeast in order to critically revisit places of handicraft production and also the making of unconventional maps from this experience.

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## Experimentation as a procedure in design education: diversity, innovation and discovery as human learning responses

**Myrna de Arruda Nascimento**

Doctor, Universidade de São Paulo, Brazil

\_\_\_\_\_ myrnanas@gmail.com

**Giorgio Giorgi**

Doctor, Universidade de São Paulo, Brazil

\_\_\_\_\_ g.giorgi@uol.com.br

The relationship between Design and Humanism discussed within this Forum as a propelling matrix of approaches that aim to consider the diversity within the teaching, research and production of Design requests, in our view, the possibility of including the experimentation as a common denominator, shared and inserted as a triggering operation of generated process of hypotheses and alternatives, in various Social and Human Sciences fields, that take part in the multidisciplinary complexity of the Design universe.

In the Art, Semiotics and Perception contexts, for instance, the experimentation plays an important role, either revealing or anticipating options, whether acting as deduction to encourage critical thinking and being able to organize information and knowledge inferred from the phenomena experienced during its occurrence.

So, the experimentation considered as an operation, unpredictable and multiplied in its manifestations in different materials, procedures, techniques and supports, evokes a reflection about process without codification, preferred instead of previously defined programs, that eventually could interfere in the spontaneous and promising and frequently innovative activity of investigation.

Necessarily contaminated by cultural and social repertoire and by personal experiences, the experimentation assumes Humanism and Diversity as unquestionable elements, needed for its occurrence in the pedagogical, scientific and professional contexts. So, the previous expertise about the needed conditions for the experience; the results obtained and the analysis developed from the observation of the experimental process; and even the conclusions that could support and extend the limits between the poetic of design and its technique, are fundamental constraints that help us identify pedagogical challenges that aim to prepare future designers to work with diversified practices and processes, and multidisciplinary.

Finally, assuming Design as an ordered arrangement of materiality and adopting this principle as the main concept to be explored by educational activities, we propose that the first practices on the design learning process should incorporate intuitive and corporal experiences by which the students could learn how to develop an invariant matrix able to provide material and formal coherence to the object considered in its tangible aspect.

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## Art education and critical reading in design

### Marisa Maass

Doctor, Universidade de Brasilia, Brazil

\_\_\_\_\_ marisa.maass@gmail.com

The particular historic contexts of Brazil as refers to industrial policies and its relations with the establishment of the teaching of drawing in the nineteenth century schools and in relation to the process of industrialization, and the introduction of the teaching of design in the twentieth century, were decisive for the present separation between art and design in our schools, a result of the historic separation between intellectual and manual labor.

This article discusses the importance of artistic education for the development of a reflexive look on design, having in view the construction of autonomy.

This question is related to the fundamental role of art appreciation, permeating the daily experience of the common person, of the citizen, and in our case, of the student. When acquiring this capacity he should be capable to identify the artistic by his own initiative and means, abandoning the dependence of tutoring in the judgment of taste. Only then will the person be capable of expressing himself artistically, of reinventing himself, but also to dream and to propose a new world.

The aesthetic attitude, in the context of education, introduces a conscience of alterity in the subject. This conscience happens with the opportunity of dialogical sharing, which is the role of aesthetics. And the establishment of this cycle is the motivating factor of the continuous development of taste.

The conclusion is that the most important didactic procedure to contribute to the aesthetic education of designers, is to promote a critical posture, associating the reading of design and reading of other artistic modalities. The article is finished by the presentation of some proposals of Darcy Ribeiro and Anisio Teixeira who agreed with the aforementioned concepts when establishing the principles that guided the founding of the University of Brasilia.

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## Contemporary design and other worlds

**Rosane Badan**

Doctor, Universidade Federal de Goiás, Brazil

\_\_\_\_ rosanebadan@gmail.com

Interior Design is an activity that belongs to a very remote anthropological culture. It is a theme connected not exactly with historical styles, but with another much more articulate type of thinking. The aim of the paper consists in presenting the methodology used in a reflection on this activity, a research which included not only the Western rationality, but also the magic sphere of the shamanic world. In particular, it is a reflection on the culture of Brazilian modern project and shamanic tradition of the Amazon Indians. Brazil is a country that hosts the native cultures with their traditions, objects, and villages in the same way that it is refuge of West civilization, with its design and contemporaneous architecture. While Brazil is the place where the contradictions may be conciliated, the magic is a key that human beings developed in order to comprehend the environment and to live in harmony with it.

Although shamanic logic is very different from western logic, the research results have demonstrated that Brazilian designer has a behaviour which is able to bring together these two rationalities. Obviously, this shamanic behaviour is more a mental form than a combination of techniques used to disassemble and reassemble physical components. Similar to the object, indigenous habitat has a different atmosphere in comparison to West: it is loaded with symbols, spiritual entities, mystical narrations which, in a general way, are representations of life. So, the hypothesis to be explored in this paper is about an integral relationship, a relation that is not just limited to the object, but the complex that surrounds the entire system of objects.

This research is not limited to the context of Brazil. The ancestry brings new questions and new values that are universal; they are incentives to the creation of other charismatic figures in contemporary. Indeed, this is a general reflection on design and anthropology, a type of construction which exceeds the historical approach that believes design would start with the Industrial Revolution.

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## Design for a (more) human world

**Ingrid Moura Wanderley**

MSc, Universidade de São Paulo, Brazil

\_\_\_\_ ingridmw@uol.com.br

**Maria Cecilia Loschiavo dos Santos**

Doctor, Universidade de São Paulo, Brazil

\_\_\_\_ closchia@usp.br

Between the years 1960 and 1970, an extensive questioning of disciplinary clippings put into question concepts and assumptions historically rooted, opening up new possibilities for understanding the relationship between the producer and receiver of ideas, products and design that directly influenced the debate around the notion of authorship in the design field and related areas such as architecture. Permeating contemporary reflections on the creation of new scenarios to the design, this article aims to discuss how critical thinking about the notion of authorship, including the concern of the human dimension of the subject determined changes in the conceptualization of the designer and the proceeds from your activity. Contemporary works come looking for interpreting the design as the policy-making process more complex, with the essence creation seen as something that transcends the action of designers, including other factors such as the use and the daily life of the products. This survey seeks to study the importance of research to take by theme the forms of appropriation and transformation of artifacts by individuals/users, revealing other uses and destinations for the objects from your actions on them - revealing creative, ingenious and inventive repertoire - questioning both the notion of design closed as the place occupied by the figure of the designer in design cycle of conception-production-disposal-reuse of objects. The main hypothesis of this work focuses on the perception that the contemporary social reality emerge new interpretations for the project idea inherent in the design. In this regard, asks what the role of an open design in the reality of production and consumption in which propositions of shared authorship or participatory processes, where the human dimension is valued, apparently threaten the very recognition of design as a specific field of reflection and practice.

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## Graphic design in media activism: from advertising to adbusting

### Carla Andrade M. de Oliveira

Doctor, Pontificia Universidade Católica do Rio de Janeiro , Brazil  
—— carlaandrademo@yahoo.com.br

### Vera Lucia Nojima

Doctor, Pontificia Universidade Católica do Rio de Janeiro, Brazil  
—— nojima@puc-rio.br

The undeniable importance of advertisement for the consumer society fuels a new movement of social dissent that is especially concerned about the impact of the omnipresent presence of advertise image today. These questions give rise to the insurgency of adbusting, an expression of socio-cultural critique that reignites the ethical and ideological debate towards the predatory power of advertising. It is in the wake of this discontent mood towards the excesses in advertising that the counter messages of adbusting foments its critical position and challenges the establishment subverting their message for critical purposes through satire, thus questioning its goals and the profitable gains behind them. It is through subversion that the adbusters recognises the validity of the graphic persuasive tools of traditional advertisement by using the same techniques to promote an opposite message.

The aim was tough to investigate how the carefully developed graphic project with the critical aim of big corporative businesses finds its argumentative potential for its subversive discourse using the same language tools of traditional advertisement employed by corporations through the subversive and satirical characteristics of adbusting, whilst examining how these counter messages discourse is perceived and rebuilt by the recipient.

The methodology of the study was divided in two parts, one with the documental and bibliographical review and a second one with a filed study. Using a analytical combination of Semiotics, Graphic Design Rhetoric and Graphic Design analysis tools, it was possible to learn more on how the adbusting's counter message subverts the traditional advertise imagery thus allowing a more comprehensive understanding of its persuasive power and how the public perceived these subversive messages, particularly in Brazil, that has little tradition on this kind of events. For this purpose, a detailed analysis of five classic adbusting images from the Adbusters Media Foundation were combined with the Content Analysis of a field research with 103 Brazilian undergraduate students to provide the necessary alliance to reach a more comprehensive view of its impact as a critical tool.

Design is inserted as a fundamental factor in the metamorphosis of these images and it is important to deepen the understanding of rhetorical and semiotic tools demonstrating its transversal ability as a field of knowledge, making an important contribution to the communication process whilst showing that the Design professionals should become more aware of their responsibilities in the development of these images and its repercussions for the society.

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## The design higher education and the relationship with the territory, the community and the local culture

### Marcelo Amianti

PhD student, Politecnico di Torino , Italy  
\_\_\_\_\_ marcelo.amianti@polito.it

### Luigi Bistagnino

Professor, Politecnico di Torino, Italy  
\_\_\_\_\_ luigi.bistagnino@polito.it

This work aims to identify and individuate through the various processes and formative models, the relationship among Product Design public Universities with the territory, the community and local culture in which they operate.

For a specific reason, the analysis is developed in Universities located in countries that are part of the Southern Common Market and the European Union: It is common to these two blocks the existence of processes, and agreements or protocols aimed at the reorganization and unification of their higher education systems. And these actions demonstrate the great interest and attention to the educational area and confirm the importance of education as a strategy for the development of economic and cultural integration.

Notwithstanding the peculiarities of the formation course of higher education, adopted by member countries of these two blocks, this work confronts the educational goals of two prestigious universities: the Design School of "Politecnico di Torino" and the Design School of "Minas Gerais" State University - UEMG. The study addresses the relationship between a University and the region to which it belongs, ie the region of "Piemonte"-Italy and the region of "Minas Gerais"-Brazil, and what actions are taken to meet local needs.

Having as main feature the focus on design as a process and systemic design approach, the "Laurea Magistrale in Ecodesign" course of "Politecnico di Torino" interest in innovation relates to a broad approach to production systems, with attention paid to human factors, placing man at the center of the project. It also aims to develop open systems design industry, new products and product-ecological systems.

In turn, the Design School - UEMG, motivated by the search for adaptations of curriculum content and context to the new languages brought by the waves of modernization and technological development, the teaching of design rethought and reshaped its curricula for undergraduate and in 2004 implemented a new educational project. This project supports specific approaches and emphases demanded by local vocations. It also serves sectors and specific aspects of the regional context producer and user.

Important to note Brazil is in a period of extensive development. Then is necessary to understand in which direction to go: follow the trend of globalization or focusing on the development of their territory in close relationship with the community and local resources.

Among others, the study analyzes and discusses the instruments used by Universities to identify the needs of the community and their vocation to meet all these needs.

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## Design and semiotics in dialogue

**Ione Maria Ghislene Bentz**

Doctor, Universidade do Vale do Rio dos Sinos – Unisinos, Brazil

\_\_\_\_\_  
ioneb@unisinos.br

In a global and growing technological improvement scenario, science practice finds an opportunity to promote the connection of knowledge, to answer to complex issues and objects, to explore mutant aspects in cultural processes and technological artefacts – all that through a transdisciplinary point of view. Such field is considered auspicious to innovation and to cooperative dialogue between areas – in this case, between strategic design and semiotics.

Our starting point is the perception of the human as a being in language and culture, in being part of symbolic meaning production spaces. Such spaces are articulated by sensitive elements' signifier systems that distinguish languages in expression language. It is demonstrated by the articulation of languages among themselves, by a syncretism process that favors meaning to contemporary cultural facts. This article proposes the use of semiotics in the development of design projects from the perspective of strategic design, which focuses on aspects such as culture, meaning and communication.

The analytical-interpretative methodology takes systematization into account in more general and structured explanatory paradigms through language theory perspectives, without the loss of social practice specificities arisen from ethno-anthropological observations such as as subjectivity marks. Semiotics serves as a mediator capable of entering a conceptual world that must be understood through a textuality inherent to cultural realities.

Semiotics applied to design as cultural innovation processes mediated by languages and technologies deals with three investigation plans: a) symbolic representations: basis of social interests; b) innovation culture processes: interpretative communities; and c) social innovation strategies: technological mediations. Such plans break down a symbolic grammar, a cooperative discourse grammar and a strategy formalization grammar. Therefore, the study of a) syncretic languages as the expression of contemporary symbolic representations; b) communities' actions on semantically redefining urban spaces; and c) the role of information technologies and communication in innovation cultural processes and sustainability; serve as basis for the productive contradiction between reality, concepts and methodologies. Broadly speaking, it is in culture that languages produce symbolic meanings - acknowledged in meaning effects - that structure and inform the strategic design process as a whole, but focusing on context research data and inputs for new scenarios.

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## Ranking in design projects: from quantity estimation to quality assessment: an advanced design approach to evaluation of design projects and research

**Flaviano Celaschi**

Politecnico Di Milano – INDACO Design Department, Italy  
\_\_\_\_\_ elena\_formia@yahoo.com

**Massimo Bianchini**

Politecnico Di Milano – INDACO Design Department, Italy  
\_\_\_\_\_ massimo.bianchini@polimi.it

In mature post-industrial countries there is increasing awareness of a new productive sector of strategic importance; this sector could be defined as the production of design projects and scientific research for design projects. Its development has generated a need to treat the design project as if it were a commodity or service, making it buyable and sellable, exchangeable, measurable and assessable. According to this interpretation it can become part of an advanced exchange circuit – a system that allows, for example, the realization of contests, submission of bids in public competitions, and the formulation of mature standards for assessing comparable projects, also in the design sector.

Some aspects are interesting to explore. The first concerns the increasing variety and diversity of design activities and projects that are evaluated in scientific and professional fields. Nowadays, we evaluate theoretical and applied research projects, educational activities, design projects participating in public or private competitions, prizes, and (periodically) a wide range of design scientific products. The separation of design projects carried out in scientific and professional fields is narrowing, because the collaboration between these entities is increasing. However, large differences remain in the assessment processes and adopted tools.

The second aspect concerns the growing importance that the public and private organizations dedicate to knowing how to assess and how to be assessed. Today, the quality of the process used to evaluate a design project is important to ensure business success in the global market or the efficiency of public works for the community.

The third aspect is to consider that the evaluation of design projects is now a complex activity affected by some changes: evaluation processes are more fluid and become more inclusive. Finally, the development of digital technologies facilitates a direct interaction between evaluators and evaluated subjects.

This article starts from the problem of evaluating scientific research as an advanced commodity or service with features that are comparable to those of a design project. It then highlights the elements which distinguish a design project from projects in other areas, and finally it opens the debate to a holistic assessment approach that takes into consideration both the humanistic and

artistic aspects of the project. The hypothesis is that the development of the quality of the design process can be a way to obtain and share this result.

The paper ends by citing some case studies of design projects evaluated on the basis of qualitative parameters.

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## User design approach applied to interactive digital art projects

### Virginia Tiradentes Souto

PhD, Universidade de Brasília, Brazil  
\_\_\_\_\_ v.tiradentes@gmail.com

### Fátima Aparecida dos Santos

Doctor, Universidade de Brasília, Brazil  
\_\_\_\_\_ designfatima@uol.com.br

The differences between artists and designers have been discussed by many authors. Munari (2008) and Potter (2002), among others, claimed that designers are primarily concerned with human needs. On the other hand, artists are in many cases concerned with creating pieces that express their own vision. However, when the discussion is about digital art, in particular interactive digital art, artists may need to look at users' characteristics and/or work with them in order to understand the way users will interact with their work.

Interactive digital art is defined by Plaza (1990) as "third level", in contrast to craft art and industrial art, first and second level respectively, in which the machine is a new and decisive agent and where interaction allows artists to communicate with users through constructive collaboration, criticism and innovative principles. Giannetti (2002) argues that digital art theories should reflect the process, the system and context rather than the art object. She states that there is a need for redefining the audience's and the author's roles. The new interactive digital objects have been changing the way users perceive and interact with objects. Users may modify digital art objects and therefore be co-authors of them. Apart from this, interactive digital art projects may be developed by different professionals such as programmers, designers and engineers. Reas et al. (2010) state that the meaning and the content of digital products are built up through software, and therefore digital artists and designers should have knowledge of how to use software in order to develop their projects.

In this new context, this paper proposes the use of a user design approach in order to create interactive digital art projects. The paper shows two case studies in which a user design approach was used to create interactive digital art projects. First, the paper presents definitions, differences and characteristics of both art and design digital projects. Then, the user design approach is discussed and the contributions of other authors on this approach are presented. The method of development of the case studies is shown, together with their results. Finally, the relevance of using the user design approach in interactive digital art projects is discussed.

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## Iconology as a matter of design between information visualization and artistic approach

### Raffaella Trocchianesi

Assistant Professor, Politecnico di Milano - INDACO Dep., Italy

\_\_\_\_\_ raffaella.trocchianesi@polimi.it

### Paolo Ciuccarelli

Associate Professor, Politecnico di Milano - INDACO Department, Italy

\_\_\_\_\_ paolo.ciuccarelli@polimi.it

The aim of this paper is to explore the virtuous synergy between art criticism and design. The humanistic discipline here is represented by the historical and critical artistic competences, whereas design brings its own specific visual tools and methods to make complex phenomena visible, accessible and usable (Ciuccarelli, Ricci, 2009).

Some topical questions emerge:

how can information and knowledge visualization help in coping with the complexity of the relationships between forms, symbols and meanings in the iconological field?

How the art history and criticism can take advantage of the design approach and of visualization methods and techniques?

How the synergy of the competences could happen? Which paradigm of relationship is the more appropriated?

We try to answer through three points:

- the first one where we describe the scientific context and the thematic/problematic issues about the art knowledge and the domain of information design and knowledge visualization;
- the second one where we will propose a critical interpretation about some cases study of visualization and visual mapping in the art field;
- the third is a case study: the project Symbolum. Mystagogical path of the Christian symbolism (by Falzone and Ghilardini, supervisors: Ciuccarelli and Trocchianesi) proposes interesting paradigms of relationship between design and humanities, in terms of art contents and design practices. The aim of the project is the valorization of an important ensemble of frescos and paintings in religious architectures in the Alto Adige region (Italy). It provides two scales of action: in the geographic context, with a diffused information and wayfinding system, and with multimedia artifacts (desktop and mobile applications) as education tools, primarily aimed at teachers in art history field. Both are visual knowledge interfaces to navigate across a physical and digital archive, that collects a significant number of images about sacred symbols in the paintings and frescos. The project was developed as a continuous dialog between design and the humanistic competences of Paul Renner, theologian and art critic. It resulted in a broad set of association between images and keys of iconological interpretation.

The art looks for relationship with new technologies creating new models of knowledge. Symbols and semantic paths: a design approach to complexity.

- Visualization and new forms of knowledge.
- Cases study.

Symbolum: an example of synergy between iconology and design.

- Concept and design of the relationship between designer and curator.
- Development of technology: system and tools.

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## Relevant factors to researches on the affective relationship user-product

### Shirley Gomes Queiroz

Doctor, Universidade de Brasília, Brazil

\_\_\_\_\_ shirley@unb.br

### Leila Amaral Gontijo

Doctor, Universidade Federal de Santa Catarina, Brazil

\_\_\_\_\_ leila@deps.ufsc.br

### Lais Cristina Licheski

Doctor, Universidade Tecnológica Federal do Paraná, Brazil

\_\_\_\_\_ lais\_lic@hotmail.com

The level of demand for the development of new products increases each day under the pressure of a market that, besides being competitive, is constantly in evolution, which makes the necessary conditions for the acceptance of new products by the consumer unstable and complex. This reality requires that designers have a greater knowledge on intangible aspects present on the affective relationship user-product in order to design more suitable products for the user.

Based on this fact, and in order to offer more suited products to the demand of the market, the studies on aspects considered relevant on the relationship user-product such as usability, aesthetics and symbolic meaning, are still advancing. Therefore, the greatest difficulty in investigating these issues is on the fact that the user-product relationship presents specifications that vary from person to person and which also depends on the communicative potential of the products, among other intangible factors.

According to Bürdek (2006, p. 283), communication is developed through a continuous process of exchange, which is always based on new understandings. Products do not speak for themselves, they speak through the language. And this communicative process has a very important role on the affective relationship user-product. However, the more specific the knowledge on the affective relationship user-product, the greater the chances of new products being accepted by the market and the greater the chances of delaying the disposal or replacement.

The current scenario shows the need for progress in the research field, although the results are still considered initial, a strong reason to continue the investigations on these issues. Niemeyer (2008, p. 57) supports that very little is known about how people respond emotionally to the products and which aspects of a project cause an emotional reaction. Based on this fact, this article presents a summary of factors considered relevant to researches that have as a main subject the affective relationship user-product and that emphasize the interdependent relationship between the approached factors and their relevance for these researches.

The texts gives a brief overview of the cultural influences and the influence of factors such as one's personality, and examines thoroughly issues related to the emotional design field, which are considered fundamental to the comprehension of the affective relationship between users and product, such as affect and cognition, emotion, attractiveness and pleasure as favorable factors to product attachment.

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## Photography in contemporary design

### Patricia Spinel

Graduate student, Universidade Estadual Paulista “Julio de Mesquita Filho”, Brazil  
\_\_\_\_\_ [kissspini@yahoo.com.br](mailto:kissspini@yahoo.com.br)

### Olympio José Pinheiro

Doctor, Universidade Estadual Paulista “Julio de Mesquita Filho”, Brazil  
\_\_\_\_\_ [holihn@uol.com.br](mailto:holihn@uol.com.br)

Graphic design uses photography as an expressive language to transmit its message. Since the creation process until the project completion, the photographic image is adapted or modified in order to constitute a composite with the other elements of the layout. The importance of photography in the creation process of design turns the question of its use in design practices into a significant research theme.

In contemporary times the relationship between design and photography is centered in the digital field, especially with computer graphics mediating this relationship. It is widely known that the development and consolidation of new technologies, such as the computer, have brought changes in the aesthetic photographic results. The technological advances also modified how the photographic image is applied in design pieces, which is characterized by the pervasive presence of photography hybridism and digital manipulation. The discussion on the technological innovations, their implications on design processes and how the photographic practice changes in this scenario suggests the need for analyses of photography in contemporary graphic design. So, it is justified to investigate and to analyze the production and handling of these photographic images, as well as the final result obtained by this practice.

Computational resources favor the creation of persuasive images that help to convince the reader about a particular cause. Nowadays, this type of image is often used to raise reader’s awareness about environmental issues: deforestation of the Amazon rainforest, world climatic changes, energy, oceans, nuclear power, and genetically modified products are some examples.

The present paper examines the posters campaign named “No Half Amazon” of the non-governmental organization Greenpeace-Brazil and analyses how new technologies and digital manipulation were used to construct a persuasive and convincing image. The posters are analyzed based on Peircean semiotics. We focus on digital images based on the concept of image processing to ascertain the possibilities photographic manipulation in the creation of a persuasive design. The resultant analysis showed that the specific aesthetic hybridity and the resulting digital alteration of photographs present in the poster image generated a highly visual identification. The picture has been able to hold the reader’s attention, allowing him to reflect on the environmental message included in the poster.

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## Consumption, design and memory design: retro aesthetics and memory objects

### Sérgio Antônio Silva

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ sergio.antonio74@hotmail.com

### Rita A.C.Ribeiro

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rita\_ribeiro@uol.com.br

Why do we keep things? Here we do not refer to collections, in the traditional sense. Here we refer to small objects that we come together over our lifetimes. A movie ticket that we find in a book, a postcard lost in our drawers have the ability to instantly transport us to other times and places. These are the places of memory.

We have attributed, throughout the ages, capacities to objects that, by far, outweigh their original functions. A ring, much more than an ornament, can become a symbol of commitment. An old key chain becomes a lucky charm. A small green confetti translates into more hope of a carnival in love. Each person, from his experience with objects, creates meanings which accompanies all his life, and the objects, being manipulated by this person, refer to the original experience, a vague sense that the primary things, forever lost, are there.

This work proposes a reflection on the memory spaces, which result from the objects that surround us every day, discussing the need to create memories and traces from the past which is implicit in the retro trend seen in new consumer devices.

Departing from the discussion of identities configuration in the twenty-first century, which are increasingly constituted by symbolically constructed references, we can identify the ways in which this necessity of creating bonds with the past – whether real or imagined – is revealed in the consumer society of this century, from the relationships established between people and objects.

The trend towards consumption of retro objects is stated again in this new millennium. We understand the term as an allusion to the past, near or far, but, more than that, towards a reappropriation of a past time. The objects currently designed and manufactured under the aegis of the retro design fall into a context of high technological development and the consequent expansion of consumption. In this context, it no longer merely matters what the product will offer consumers in terms of making their lives more convenient or comfortable, or in terms of its real applicability or functionality; it does matter the product's ability of combining an associated value with its more immediate attributes, which is, according to some studies, emotion, more specifically, the emotional design, the focus of our discussion.

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## Design as inventive process: the contribution of design semiotics

### Salvatore Zingale

Professor, Politecnico di Milano – INDACO Department, Italy

\_\_\_\_\_ salvatore.zingale@polimi.it

Intended as planning tension – that is to say an intentional act moved by a state of necessity and oriented towards the achievement of a goal – design has a role always more important in the construction of the “idea of the future”. But the future not only needs to be constructed, but firstly it needs to be interpreted. The sense of the future (what we desire being) influences the sense of the present (what we are able to be).

But through which possibile means is it possibile to elaborate a plausible hypothesis as a response to a problematic condition (lack, inadequacy, desire)? What does it mean in semiotic terms, to interpret the sense of the future?

Certainly it doesn't mean to carry out an action of forecasting, because Semiotics is not a predictive science. Instead it means carrying out an action of foreshadowing, where the object of the project gets “caught” through an inferential act, in particular of the “abducti-ve/inventive” type. This act, often improperly associated to ambiguous concepts of intuition and/or creativity can be investigated through a logical semiotic model. The paper intends to present a representation of such a model and to indicate some of its possible uses.

In the first place, the paper will attempt to underline why it is necessary to overcome the generic and often misleading resort to creativity in favor of a much clearer definition of the concept of “inventiveness”.

Secondly, planning inventiveness will be seen as an act of fore-shadowing of a “possibile image”; in this sense the planning inventiveness is combined with all processes with which the mind is able to produce “imagination” (in the German sense of *Einbildungskraft*, putting something in image).

Finally, the abductive/inventive model will be defined like a path of choices and decisions, a passage of one alternative to another following a procedural “tree-scheme” in order to arrive to the individuation of a plausible hypothesis.

The scope of the paper is to underline the semiotic dimension and inferential of design. The prospective of design as an inventive process could furnish both tools of analysis and observation of everyday activities in addition to a “rudder” in order to better orient the planning path.

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## Exhibition design as act of direction towards a cultural convergence project

**Marco Borsotti**

Assistant Professor, Politecnico di Milano, Italy

\_\_\_\_\_ marco.borsotti@polimi.it

This proposal is focused on the exhibition design interpreted as a complex process task of exhibition development strategies for a cultural event: a process where the most specialized component is implemented only in relation to a "humanistic sensitivity" that includes different levels of practices and processes.

The exhibition design project moves between the spatial conformation control of the environment and the definition of the exhibition instruments: to get it, implements an intense coordination of multiple disciplines related to each other and often complementary. These disciplines appear applicable within the same scenario only through the understanding and control of their rules for use and by the intuition of their mutual interactions.

Historical/ scientific ordering, architecture, proxemics, visual design, technology: the creation of an exhibition sees converging in his thought processes and executive expression of many fields of knowledge that combine to define possible interpretations of modalities of expression of culture.

This defines a profile of complete integration between multi-disciplinary project activities related to the environment, re-read in progress, as the place otherwise made available, through a representative and communicative act.

As claimed in this proposal the exhibition design is a discipline made up of multimodal coordination practices of their own forms of expression, achieved through the development of controlled interdisciplinary interaction processes, which transform the internal space in a place of the simultaneity of events. It is a "culture project convergent": a confluence of knowledge that must be coordinated and made comprehensible. A participatory planning that generates shared culture in a flow of information involving intellectual platforms cooperating each other: a complex assembly of an event space-time which we should call "act of direction".

To support this definition will be compared a few case studies of Italian projects, analyzed through interviews with the designers and curators, to highlight the problems and the final results of a round trip between "humanities" and a project aims to make possible different modes of narrative and vision. These cases reveal the close synergies between the different forms of knowledge that converge on the project, dealing with themes of classical and contemporary art, archeology, music, communications, multimedia, interactive and immersive spaces. In particular, some case studies will be: Mantua - exhibition "the celestial gallery" - project by Fabrica; Cortona - Etruscan archaeological museum - exhibition "the collections of the Louvre in Cortona" - project by Andrea Mandara; Milan - Museum of the '900 - project by Italo Rota; Warsaw - Chopin Museum - project by Migliore+Servetto.

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## Hybrid methodology for social & digital space design: user experience & interaction models design based on human science & user-centered

**Letizia Bollini**

Assistant Professor, Università degli Studi di Milano, Italy

\_\_\_\_ letizia.bollini@unimib.it

The spread of social dynamics of web 2.0 and the SPIME devices (Sterling 2006) which allow consultation georeferenced and in mobile context of internet data have introduced new challenges to the classic (web) interfaces and interactive systems design models. The approaches of the design disciplines – based on problem-solving, analytical & synthetic models (see Munari 1981; Potter 2002 and Bollini 2007) or already mediated by cognitive science methodologies such as user-personas/scenarios (Garret 2000) or mixed with IT procedures – seem no longer sufficient to meet the needs of new theoretical, cultural and methodological framework.

The paper introduces and presents a research approach based on hybrid methodologies of design, human & social sciences aimed to identify social dynamics as drivers of the digital – UX & interaction – projects.

The paper introduces and presents a research approach based on hybrid methodologies of design and human sciences (quantitative and qualitative research methods) aimed to identifying social dynamics as drivers of the project that has the space as main design focus, in its physical, experiential and digital dimension.

The focal points were identified in the landscape – based on the Lynch's idea (1969) – the lived social and digital experience according to the psychological approach of Turkle (1997 e 2012). The research has investigated with experimental methods different levels of details exemplified by case studies increasingly complex (size/scale) to monitor and model the interdisciplinary approach, its applicability and reproducibility as a method (Bollini 2011b).

A first design case – the cell – has investigated a spatial aggregation and a vortal (University campus) through a mixed approach of design/qualitative research and user-test methods.

A second one – the texture – dedicated to a spatial aggregation and a multifunctional knowledge-based modeled on the needs of the social-tribes (Maffesoli 1969) of an urban district used an hybrid approach made by design/qualitative research and representative tests.

And a third – the body – focused on a systemic relationship between a space cluster, social-tribes and digital worlds translated in a Mobile App investigated the space from a design & social perspective, validated through qualitative and social research methodologies (Bollini 2011a).

In perspective of the cases' experimental results, the hybrid approach – modeled through the different disciplinary perspectives and methodologies – seems to better meet the challenges that new social and technological scenarios are opening in areas increasingly specific and at the same time transverse as the interaction and digital media design.

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## Seeking a conceptual framework for researching (or carrying out) projects with small craft groups

**Mônica Maranhã Paes de Carvalho**

MSc, Pontifícia Universidade Católica do Rio de Janeiro, Brazil

\_\_\_\_\_ monicamaranha@gmail.com

**Alfredo Jefferson Oliveira**

Doctor, Pontifícia Universidade Católica do Rio de Janeiro, Brazil

\_\_\_\_\_ afferson@puc-rio.br

In the Brazilian context, we have seen the gradual emergence of a series of initiatives created in the confluence between design and crafts. In most cases, they are oriented towards social inclusion and local sustainable development of the target communities. Whether the designers intervene in the production or train the artisans, the design processes vary depending on the kind of work and on the social and cultural context.

This article aims to observe these initiatives in the light of contributions of Olivier de Sardan (2005), Baré (1997) and Zaoual (2006). The first two authors argue that the development actions should be understood as arenas, where social actors with different interests interact with each other. This approach is faced with the theory of sites, introduced by Zaoual, in particular as regards the symbolic sites of belonging, the endogenous expertise, the pedagogy of listening and accompaniment, and the civilization of diversity.

With this conceptual framework, we re-analyze the performance of eleven designers who have carried out projects with small craft groups. They were interviewed during a recent research for a Master thesis.

We believe that this perspective is useful for both the researchers (who study these initiatives) and the designers (who carry them out). It seems to shed light on the various impacts, goals, methodologies, and relationships between the actors. Besides, it avoids for example that one adopts an attitude of superiority toward people in the community and it leads us to understand that the products are created in a collaborative way in order to incorporate cultural values, people's stories and local materials. These initiatives, which have strong social and cultural content, seem to enable the emergence of original design processes, for the interviewees said that their methodologies were developed intuitively and refined over time.

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## Maximising the potential of academic design research: blending scientific, and social sciences practices for improved pattern recognition and validation

### Gabriel Patrocínio

PhD student, Cranfield University, C4D, England  
\_\_\_\_\_ gabrielpatrocinio@gmail.com

### Simon Bolton

Professor, Cranfield University, England  
\_\_\_\_\_ s.bolton@cranfield.ac.uk

Academic design research is crucial to the development of the subject area and demonstration of its importance and relevance in addressing economic and social innovation factors. This paper will be of interest to academics working at or within those interfaces and or discourses. It will make a valuable contribution to need within the international academic design research community to share best cross-disciplinary research practices. This is where applied academic design research and design researchers frequently struggle to validate their methodologies and findings within the academic research community.

This paper will centre on how blending scientific and social science practices helps improve pattern recognition (identifying phenomena) and how systematic case study methodologies can be used to critically validate or disprove the identified occurrences in applied and academic design research.

It will summarise the finding of an extensive literature review that has led to the identification a series of design research issues and opportunities that has critically informed this paper. Specifically the paper will describe the use of a visual modelling method to select, sort and process abstract data, which seems particularly relevant in the field of design, and conforms to scientific thinking, where visualization is considered an integral part (Ainsworth et al., 2011). From a dataset of a literature review, e.g., visual representations facilitates the identification of emerging patterns, establishing new relationships, and elaborating new knowledge – moving from an unfamiliarity level, with high levels of uncertainty, to a familiarity level, with low levels of uncertainty (Bolton 2011). Case studies methodology (Yin 2009) is also presented as a valid theory-building resource for design research, considering the particularities of this new field of scientific knowledge, focused in contemporary events.

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## **Semiosis as a process in product design: case study on the development of an experimental urban micro environment for relaxation**

### **Raquel Klafke**

Undergraduate student, Universidade de São Paulo, Brazil  
\_\_\_\_\_ raquel.klafke@gmail.com

### **Felipe Massami Maruyama**

Undergraduate student, Universidade de São Paulo, Brazil  
\_\_\_\_\_ f.massami.m@gmail.com

### **Evandro José de Almeida**

Graduate student, Universidade de São Paulo, Brazil  
\_\_\_\_\_ evandroalmeida.usp@gmail.com

### **Anderson Vinicius Romanini**

Doctor, Universidade de São Paulo, Brazil  
\_\_\_\_\_ viniroma@gmail.com

In a context where design manifests itself in many forms and we can't define the boundaries between the material and immaterial realities, we have the urge to rethink its definitions and methods, and look forward to new approaches that would enable us to resolve today's problems. Believing that Design is the process to create and articulate an array of relations in order to solve problems, undergraduate Design students from Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo (Architecture and Urbanism School of São Paulo University) applied Peirce's semiotics concepts in the development of products, seeing methodology as a transdisciplinary process. The differences between the traditional projective thinking and the semiosis as a design process will be compared in the case study on a counterproposal – currently in progress – to the theme of Projeto de Produto 7: Edifício (Product Design 7: the City) class, from FAUUSP Design major, which happened during the first semester of 2012. The initial proposal was for the students to create, in an abstract way, itinerant compact habitations used in extreme situations. This current analysis will focus on the approach of a specific group of students, which was: how to solve the urban stress caused by São Paulo on its citizens? The complete development of their work will be registered and analyzed through pedagogic and projective perspectives, pointing the implications that this new logic brings to the way of teaching design through the following steps: (1) how did the students define the universe of this study, (2) how did they collect materials and references from other fields to address the problem, (3) how did they analyze and interpret the data and (4) how did they use the findings to reach one of the possible final solutions, considering the subjective nature of the problem. The result of this work, the conceptualization of experimental micro environments

for relaxation near urban terminals with large circulation of users, brings to light the need of new projective practices adapted to contemporaneous reality. Integration with other fields – such as semiotics and psychology – eases the creative process, since it offers indispensable knowledge so that designers can comprehend users in a global way, as well as best ways to work with matters that surround them.

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## The contribution of “Future Studies” and computer modelling in the origins of the sustainable design debate: the role of the limits to growth report

**Pier Paolo Peruccio**

Assistant Professor, Politecnico di Torino, Italy

—— pierpaolo.peruccio@polito.it

The paper investigates the relationship between Sustainability and Design in an historical perspective. It clarifies the role played, mainly in the 60s, by the so-called “futurists” (i.e. Bertrand de Jouvenal, Gaston Berger, Pietro Ferraro, Alvin Toffler and Herman Khan) in describing future scenarios also in conjunction with the large use of computer simulation for understanding the dynamic behaviour of complex systems. The “need for rationality” (Alexander, 1964) of the design process seems to have many philosophical elements in common with the Operations Research and other scientific approaches of that period.

In the early 1960s Jay W. Forrester founded the System Dynamics Group at the MIT Sloan School of Management. The systems dynamics methodology, based on cybernetic principles, was applied to developing the “Limits to Growth” report, a popular bestseller book (over 10 million copies worldwide in some 30 languages) promoted by the Club of Rome.

The report, written by a team of researchers of the MIT and published in 1972, describes a collapse of socio-economic systems accompanied by a depletion of natural resources.

At that time the report had a considerable impact, even if a large part of the established economic community criticized the lack of certain data and scientific theories.

Today it is considered as a milestone study in the history of environmentalism. A central role in the development of the report was played by Aurelio Peccei, an Italian industrialist (and “futurist”) who was at that time high executive of Fiat motor car Company and managing director of both the Olivetti and Italconsult. In 1968 Peccei founded the Club of Rome, an informal and non political association formed by a group of international scientists, business leaders, intellectuals and politicians with an ambitious goal: to detonate an urgent debate on “the predicament of mankind”. Their contribution was towards a better understanding of the problems of modern society as a whole.

The report, written four decades ago to the Club of Rome, remains an interesting and international phenomenon of a “seminal” book, cited everywhere even out of the context, able to make general public, and not only scientists, aware of the limits of our finite planet and the key role of new negative factors such as the growth of pollution.

The paper will be mainly analyzed from an historical point of view. It will bring back a period of studying and researching in different archives in US and Italy.

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## Design and semiotics in the construction of scenarios

### Paulo Bittencourt

Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ paulo@saraucom.com.br

### Ione Maria Ghislene Bentz

Doctor, Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ ioneb@unisinis.br

### Paulo Belo Reyes

Doctor, Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ reyes@unisinis.br

This article is the result of reflections that articulate the knowledge of the semiotics with the design, more specifically with the strategic design. The methodology of strategic design exposes a set of articulated elements with a view to the formulation of projects of innovative systems, products and services. Among the steps of the process, is the construction of scenarios, which purports to trace different pathways to innovation. It is through the scenarios that the orientations of project complicate, consisting of a platform for reflection and sharing ideas about the futures. The scenarios point to a tensioning of the possible project paths. One can understand them as a variety of future possibilities whose occurrences have not yet been identified as certain. In this article, it is proposed that the scenarios are developed from an organized collection of data, formulated by semantic categories defined by a structured process of logical operations. This dataset is a collection of relevance to structure projects in its various phases. It is in them that are read or perceived the needs of the users, their future expectations, the aggregate values wanted. Are the actors of the narratives articulations that tell us of the positions of the subject of the speech, and is at the crossroads of scenarios that these relationships operate. This is the syntagmatic dimension of language. The contents conveyed by signs on the road compose the semantic dimension; and the way that everything happens in practical life corresponds to the pragmatic dimension. It will be spoken here of the semantic dimension and the acting articulation. From this approach by semiotics, represented by the semiotic square, the scenarios will be rethought. The semiotic square, a visual representation of the different possible relationships of a semantic universe, enables, from disjunction and conjunction operations, new relationships – of annoyance, of contradiction and complementarity – able to generate four new categories of analysis. These four categories can be converted into a chart of polarities, an instrument of analysis in which terms are plotted at the ends of the axles, on the idea of provoking tension between the opposite poles and stimulate the thought on extremes. The categories expressed in the polarities chart can therefore lead to the scenarios for the development of a design project. To operate with scenarios is as a technic of hit and error, where the designer can operate on the more plausible futures of occurrence.

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## The painted letter: condition and destiny of the typographic image in the contemporary art work

**Noni Geiger**

Doctor, Universidade do Estado do Rio de Janeiro, Brazil

\_\_\_\_\_ geiger.noni@gmail.com

“The painted letter” is a research in the theoretical field that analyses the relationship between typography and the work of art, notably in the twentieth century, within the complex feedback process in which the typographic element is appropriated by the art work, whereas, on its turn, influences its design. Our interest consists on identifying meanings of use of the typographic element on the art work, as for its means of usage, to which we will refer as techniques, as for the choices of its design. The search aims the understanding of the presence of the typographic element – therefore, the written expression – within the plastic arts, that raises the contemporary conflict on the audience between the eye and the mind; meaning the absorption of verbal language by the art work.

This article searches to analyze the phenomenon where the verbal expression, depicted by typography, is not just a constituent, but a key element to grant its very status of art work. This analysis also seeks recognising meanings as for the choices of use of the typographic element within the paradigm of the two poles of the modern creation: the “expressionism” – understood as expression and authorship in art, as subjectivity, and not as the artistic movement – and the “depersonalisation”.

Braque and Picasso will accomplish the ultimate rejection of one of the fundamentals of the Occidental painting since the Renaissance of the “quattrocento”, where the surface of the picture is an imaginary transparency, displaying an illusion of the apprehended reality. In its place, there will be almost a reversal to a Medieval point of view, where a pictorial image is a symbol, and its relation to reality is conceptual. The reality of the nature is substituted by the reality of art. The autonomy of art will demand independence of nature.

From the beginning of the twentieth century, the deliberate merge of the avant-gardes between media and art embed this ‘other’ of design – not yet fully defined, which will happen in the Bauhaus –, of the newspaper, packaging and advertising. There will be also disrupted frontiers between visual and literary expression.

Our interest consists of developing an analysis of what we may consider the artist’s “project strategies”. The underlying meanings within the specificity and criteria of the artist choices are to be investigated – whether there are privileged typefaces, typographic origins and means –, by endowing them with intentions of significances.

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## The humanistic discourse in design

**Evandro Renato Perotto**

M.Sc., Universidade de Brasília, Brazil

perotto@unb.br

There is an ontological aspect of design that has put it in a very narrow articulation with the production scope since early times. This has given it certain characteristics that can be considered incompatible with a humanistic approach. Until recently design was not considered a humanistic project, or an activity to be thought of from the standpoint of the human being. The prevailing idea was that design is a matter of technical rationality pertaining to production raising, the circulation of goods, and production management. Is it possible to discuss the humanistic perspective of design without dealing with the social and economic context that, in its configuration, defines and places the human being essentially as a consumer that is constrained and subdued to this condition by strategies of involvement, seduction and emotion? Certainly not! It has been noted that many of the current humanistic discourses in the design area might be perceived by the unwary as an indication of a stage where design effectively contributes to the human fulfillment by fostering human potentiality and well-being. So, how can we think the relationship between design and humanism? Any discussion that intends to identify or establish relations between design and humanism, in my understanding, cannot abdicate from an earlier discussion that looks into design from an ethical and moral perspective in their strictly philosophical sense. Firstly, it would be a preventive attitude against the superficialities of certain discourses called “humanistic” which disqualify and apart the human being from the design process, and at the same time, it would allow us to move towards comprehending design as a truly humanistic project, escaping the naive, innocuous, paternalistic or exotic solutions. Some processes of design which adopt the discourse of a “humanistic approach” sound more as camouflaged strategies of cultural appropriation in which the result is purely the perpetuation of the individuals as consumers, and their function is to absorb and maintain this fabulous productive structure. Any consistent discussion about the relation between design and humanism imposes us certain questions, even uncomfortable ones, in which we could not avoid. Whom does design serve? Where is it located in the context of contemporary processes? Is it possible to reconcile the relevant functions of design in the systems of complex societies with the humanistic thought? This comprehension of design is the minimum condition necessary to establish a transdisciplinary dialog with the humanities and a redefinition of design.

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## Taking down walls and building bridges

**Evandro Renato Perotto**

MSc, Universidade de Brasília, Brazil

— perotto@unb.br

To postulate a humanistic condition for design requires beforehand an ontological revision to allow transdisciplinary articulation. Understanding the nature of design, and its insertion in the economic, social and symbolic contexts may effectively contribute to theoretical approaches, in which design is seen not only as an inherently technical process for the material configuration of objects, but rather as a cultural process. This is no simple task since a disciplinary redefinition of design involves quite complex ontological and epistemological questions, especially since theorizing in design is relatively recent, and the very object of study is in the process of definition and construction due to changing and increasingly complex scenarios. The effort toward relocating design in this new context implies both a significant theoretical and methodological modification, and assuming and effectively trans-disciplinary posture. It is possible to affirm that the designing process and the artifacts produced represent one of the foremost syntheses of the multidimensional complexities of reality, and that such a process therefore ceases being exclusively within the scope of design and relocates within the trans-disciplinary space. To give up theoretical exclusivity over the design process would be a daring step toward redefining the discipline and fostering transdisciplinary articulation beyond merely juxtaposing or appropriating knowledge from one area to another. Theoretical bridge building requires a measure of methodological care in order to recognize among the gathered elements: (1) the perceptive, descriptive and explicative capacities of each element; (2) their similarities, convergences, and complementarities; (3) their parallaxes, divergences, gaps and incompleteness, which in transdisciplinary articulation may effectively represent the greatest potential for making analyses that might explain the complex contemporary objects. It is understood that the knowledge and the tools that are considered valid and operative in the different disciplines involved may prove limited, or even invalid to account for the complex and multidimensional processes in design. Therefore, design needs both philosophical and theoretical redefinition to gain carrying power for epistemological strategies of transdisciplinary articulation. Relocating and re-conceptualizing design for attending the demands of social innovation in the context of complexity requires big efforts toward taking down walls and building theoretical bridges. Design making in the years to come certainly will not be the same as it was in the past.

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## Vernacular design and sustainability in traditional communities

### Marília Riul

MSc, Universidade de São Paulo, Brazil  
\_\_\_\_\_ mriul@yahoo.com.br

### Maria Cecilia Loschiavo dos Santos

Doctor, Universidade de São Paulo, Brazil  
\_\_\_\_\_ closchia@usp.br

We are at a time of paradigmatic transition and epistemologists point a long term process of change, when fundamental principles of western scientific knowledge should be questioned (SANTOS, 2000). Recognize the value of other kinds of knowledge that have been ignored by the mainstream is among the essential needs (GINZBURG, 1990; SANTOS, 2000). Design is inserted in this request for change grounded in the current socio environmental crisis and in the absence of dialogue with diverse kinds of knowledge. Design and crisis are correlated because of its active task as a projectual activity in the way we construct and inhabit the world (BONSIEPE, 2012). By “everything designed goes on designing” (FRY, 2009), we understand the fundamental importance of the way design thinks the man-world interaction, considering the effects of the designed directly in the world and indirectly in human behavior in relation to the world. Large criticism is faced by design theory and practice (PAPANEK, 1995; WALKER, 2002; FRY, 2009; BONSIEPE, 2012) for its disarticulation and passivity concerning the profound world crisis characterized by problems like poverty, resource scarcity, environmental pollution, climatic changes and unhealthy people and ecosystems. In parallel, traditional people are known for different ways of living and managing resources in comparison to urban-industrial societies. They are characterized by peculiar forms of resource management to ensure their socio-cultural reproduction, based on their perceptions and representations marked by the association with nature and dependence of natural cycles (DIEGUES, 2001). Converging to the trend of paradigmatic shift, the present work pursuits the intensification of the interchange between academic design and non-academic forms of knowledge in the area of material world production with emphasis in sustainability. It presents a doctoral research project in progress focusing vernacular design in a fishermen community in Paraíba, Brazil. The analysis will focus on the traditional knowledge that is certainly reflected in the conception and production of artifacts - result of local particularities and essential necessities of the community that may be traduced in diversity of knowledge and solutions - and the effects of the practice of academic design in their vernacular design, through the industrialized artifacts that are now being consumed in the fishermen village - due to the processes of modernization and globalization. This is a qualitative research that represents the connection between design and humanisms (anthropology and environmental science) and the procedures include interviews with the fishermen and photographic registers of vernacular artifacts.

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## The brand dna process approach as motivational factor in setting the identity and brand management

### Helder Cardoso

Graduate student, Universidade Federal de Santa Catarina, Brazil  
\_\_\_\_\_ hedycardoso@gmail.com

### Richard Perassi

Doctor, Universidade Federal de Santa Catarina, Brazil  
\_\_\_\_\_ richard.perassi@uol.com.br

This article proposes a research report on the area of Design Management, specifically the branding or brand management. The text is a result of studies and research conducted in the course of specialization in Design Management, developed by Design Management Center (NGD / UFSC), through the Graduate Program in Design at the Federal University of Santa Catarina. The object of study is the co-creative process of recognition organizational brand identity Brand DNA, which is developed by the laboratory LOGO / UFSC. The research followed the guidelines proposed by the Center for Research SIGMO / UFSC, which studies the processes of information and organizational communication.

“Organization” and “corporation” are substantive terms related to “body” and “body”, indicating a set of integrated elements and ordered. The suffix ‘action’, which participates in two words, indicates movement and dynamism, setting out the terms “organization” and “corporation” as dynamic assemblies or systems (Perassi, 2010).

Conceptually and historically, the relationship is intrinsic to the design of the whole process of “doing”. According Escorel (2000), during the Industrial Revolution emerges “a new specialist, the designer” and this “is to control the process from product design to its use.” In its origin, design is an activity that pervades through all stages of an organization. The need for a professional company with global vision and strategy and not only the production process itself is the design activity. The design comes as strategic considering that the final product is not just something that delivery to the consumer, but an entire multidisciplinary process.

The design management in an organization collects, manages and distributes the information to provide and enable the activities of Design and also the information and applications that are related to such activities.

The identity of an organization requires commitment and conviction of its workforce. To this end, the cooperation of the motivating factor of the process developed provides emotional stimulant, with regard to brand identity. A survey of ten participants of the processes that occurred in the

companies confirmed the initial perception that the experience is dynamic, exciting and motivating. Thus, it is stated that the process under study is perceived as effective in terms of recognition of the organization brand identity and also serves as co-creative experience motivating and reinforcing the participants' experience with the brand identified.

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## Design & anthropology: an interdisciplinary proposition

**Zoy Anastassakis**

Doctor, Universidade do Estado do Rio de Janeiro, Brazil

— zoy@esdi.uerj.br

There has been, for almost thirty years, in the field of Design, a strong investment of approach to concepts and tools related to the Anthropology practice. This movement has expanded in such a way that today it is possible to find anthropologists hired by design offices, across the globe, as well as two Masters Programs in 'Design Anthropology' – at the University of Aberdeen's Department of Anthropology, in Scotland, and the University of Swinburne's Faculty of Design, in Australia. It is also easy to find literature on applied Anthropology (to design). In Brazil, in undergraduate courses in design such as the one at the Pontifical University of Rio de Janeiro (PUC-Rio), at the stages of Project where the students have to gather information and make contact with those for whom they design their products, the students are monitored and guided by anthropologists. In Rio Grande do Sul, Graduate Specialization students of Strategic Design from UNISINOS are also introduced to Anthropology, and do exercises that involve field ethnographic research. In this paper, from a fast historical review of that approach, complemented by an ethnographic investment that is more focused in observing situations that involve teaching Anthropology in design courses in Brazil nowadays, I intend to discuss a few implications of appropriation of anthropology by the field of design, and, thus, contribute to the discussion about demands, definitions and cuts that fall upon contemporary design. Aiming to think about interdisciplinary and multi-faceted dialogues that have been increasingly attempted by Design professionals, challenged to face the complex contexts we live on, I perceive, in the expansion of the dialogue between Design and Social Sciences, an opportunity for Design to reposition itself as a discipline that proposes interdisciplinary dialogues and practices and that, once it is understood as an integrating part of the social process, it can contribute to management of socially and culturally relevant issues.

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## The contribution of humanistic psychology to human-centred design: the concepts of Carl Roger, Alfred Adler, Carl Jung and Christopher Bollas for understanding users as individuals

**Denise Dantas**

Doctor, Universidade de São Paulo, Brazil

\_\_\_\_\_ dedantas@usp.br

This article discusses the articulation of concepts from humanistic psychology to the principles of Human-centred design in order to improve understanding individuals for whom we design.

It begins by discussing the design as eminently humanistic activity, in contrast to a market vision or techno-productive design vision, considering its historical evolution as an important element in the growing process of humanization of this field. It presents a humanistic psychology as a theoretical approach within the field of psychology, most appropriate for understanding individuals and their role in the construction of everyday life.

The humanistic psychology proposes that human life is dynamic, and that at each stage the individual is capable of performing to become fully integrated. These concepts applied to design allows understanding individual capacity, will, freedom of choice, their capacity for development and self-organization from a theoretical framework consistent with the needs of contemporary design. Thus, some concepts of Carl Rogers, Alfred Adler, Carl Jung and Christopher Bollas are presented that are considerate corrects to illuminate the aspects mentioned above.

Among the authors cited the following topics are discussed: person-centred approach, the self (self-concept), the concepts of congruence and incongruence, empathic understanding, behaviour and field of experience from the standpoint of Rogerian's theory; individual psychology, life goal, lifestyles in their four dimensions defined by Adler; the concept of persona defined by Jung; the concept of self as a character, presented by Bollas.

These concepts were discussed from the literature by CLAPIER-VALLADON (1988) FADIMAN, J.; FRAGER, R. (1986, 2004), GEIWITZ, P.J (1973), academics of Theories of Personality, and ROSA, E.Z & KAHHALE, E.M. (2002), NYE, R.D (2002), PICHON-RIVIÈRE, E.; QUIROGA, A. P. De (1998), SILVEIRA (1996), that introduce key concepts of theorists cited, in addition to the texts of their own theoretical Bollas (1998) and Rogers (1978, 2001).

The articulation of these concepts to their application in design is the ultimate goal of this article, which presents a new paradigm for discussion of the approach of the designer with the individuals who will benefit from their projects. Thus, the conclusion has drawn show possible applications to build a new approach to the human-centred design.

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## Visual tools for humanities research: design and the digital humanities

### Giorgio Caviglia

PhD student, Politecnico di Milano, Italy  
——— giorgio.caviglia@mail.polimi.it

### Paolo Ciuccarelli

Associate Professor, Politecnico di Milano, Italy  
——— paolo.ciuccarelli@polimi.it

### Catherine Nicole Coleman

Stanford Humanities Center, United States  
——— cncoleman@stanford.edu

The interest in digital technologies as means of analysis and/or objects of study has been at the center of increasing debates in the Humanities in the last few decades (Hockey 2004, Cohen 2010). Such an interest has been converged in what is commonly known today as Digital Humanities, a strongly heterogeneous set of disciplines built on the intersection of computing and humanities studies and concerned with the production, the analysis and the publication of humanistic knowledge through digital media. A large number of tools, theories and practices have been developed and discussed in the last few years (Schreibman and Siemens 2004, Bartscherer and Coover 2011, Berry 2012). After a first pioneering period where technologies from other disciplines - traditionally closer to numerical and quantitative treatment of data - have mainly driven and oriented the approach to digital research, it is now emerging the need of proper and ad-hoc digital humanistic methods and tools (Berry 2011, Gold 2012).

We strongly believe that Design, so poorly involved in the current debate around Digital Humanities, can indeed play a crucial role in defining and providing both the practical and the methodological tools to help humanistic scholars in their activities, combining a disciplinary sensitivity for communication aspects, a practical familiarity with digital material and a strong sense-making attitude (Bonsiepe 2000, Kazmierczak 2003, Almquist & Lupton 2010, Drucker 2011a, 2011b). In this paper we present an ongoing research focused on understanding how data visualizations and dynamic interfaces can contribute to the definition of new and genuine research processes, capable to embrace and develop a humanistic approach to digital technologies (Frischer et al. 2006, Drucker 2009, Cohen et al. 2009, Gold 2012). Several projects, developed in the framework of a long term collaboration between scholars and researchers from the Department of History at Stanford University and the Design Department at Politecnico di Milano, will be illustrated and discussed. A closer and on-site investigation of the nature and the needs of scholarly activities in the Humanities will be introduced, together with some first research outcomes, in terms of the design of a series of visual tools, defined and tested together with scholars and students from History and Literature departments. Finally a discussion about if and how the outcomes from these experiences can be extended and tested outside humanities disciplines will be presented.

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## Designing and managing social innovation: an interdisciplinary approach on how design-based action can help communities to promote sustainable change

### Eduardo Staszowski

Assistant Professor, Parsons The New School for Design, United States  
\_\_\_\_\_ staszowe@newschool.edu

### Nidhi Srinivas

Associate Professor, Parsons The New School for Public Engagement, United States  
\_\_\_\_\_ srinivan@newschool.edu

There is evidence that sustainable social innovations are happening all over the world and that the design community is already mobilized to assume an active role. Designers may act as intermediaries and trusted agents that use the language, methods and tools of design to create conversations among different stakeholders and to govern these processes. They can facilitate the creation of networks and partnerships; launch projects, events, and platforms; and engage local groups and individuals to organize themselves and improve their cities and their lives. Although these are relatively new design activities, we can see a number of new methods and tools being empirically created or adapted. However, different from other disciplinary fields, design still lacks theoretical models that can help to explain social innovation and processes of sustainable social change. In order to support the potential role of designers as brokers in the process of social innovation, this paper will borrow and explore three concepts from the field of sociology and management studies that support a discussion of design for social innovation and sustainability: structural holes, tacit knowledge and heterarchies. Structural holes are areas of disconnection within a social setting, where needed information is not shared due to structural limitations. Think of brokers who are able to link prospective buyers and sellers of property and charge a fee for such a service, simply because of the complexities and trust problems of such information sharing. Tacit knowledge is customary knowledge embedded within work practices, and thus hard to render explicit, formalize, or routinize. Heterarchies are cross cutting interdependent networks that generate opportunities for heterogeneous collaboration. We argue that these three concepts offer domains for design intervention for social innovation, respectively, in terms of designs that locate informational gaps and reduce them; designs that support efforts to document in visual and even tactile form existing vectors of tacit knowledge; and design interventions to enable inter-organizational collaborations.

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## Self-production: a human centered design process

### Francesco Mazzearella

M.Sc., Politecnico di Torino, Italy  
\_\_\_\_\_ francesco.mazzearella@studenti.polito.it

### Pier Paolo Peruccio

Assistant Professor, Politecnico di Torino, Italy  
\_\_\_\_\_ pierpaolo.peruccio@polito.it

Self-production is often defined as an activity aimed at affirming the autonomy of designers, the first step towards self-managed production, between craftsmanship and small series. Sometimes it is an approach designers consider as a failure, an expedient for those who have lost the possibility of cooperating with firms.

In reality, self-production is a human-centered design process. In a company responsibilities are divided among various professionals whose aim is almost always selling their products. On the other hand, in a self-production process everything revolves around the designer's humanity, and for this reason it is more likely that self-producers follow their own design passions rather than commercial issues.

Self-production shows how design is moving towards management of the entire process (design, production, distribution, communication) rather than focusing exclusively on the final product. In self-production, the "know-how", the technological testing, the direct control over the overall product system are the key factors.

In the third industrial revolution era, self-producers act as the "mediation between areas of knowledge", as a bridge between craftsmanship and industry, able to interact with diverse figures throughout their design process.

A self-producer designer draws on humanities (such as anthropology, sociology, history) in order to read the cultural, social, aesthetic and material background of a territory. Human and social sciences can provide critical instruments to read and map a territory through trans-disciplinary techniques, such as ethnographical research, in order to identify the cultural specificities to be enhanced in a self-production process.

Humanities can support self-production not only upstream, as a source of inspiration for mindful projects, but also throughout the process to manage the user involvement in practices of participatory design, as well as downstream, for designing the distribution and the communication of a product in an anthropocentric way.

Do-it-yourself experiences have come from the USA and Northern Europe: designers act as enablers of self-construction processes of objects made by users. The man is placed at the center of the project, such as in experiences of “digital making”, concerning the automated construction process through complex but accessible technologies.

On a opposite but equally exemplary front, in Brazil self-production is often linked to craftsmanship to preserve local traditions and identities. This is sustainable design, due to the fact that it is typically local, using the cultural, social, material and technological resources of a territory.

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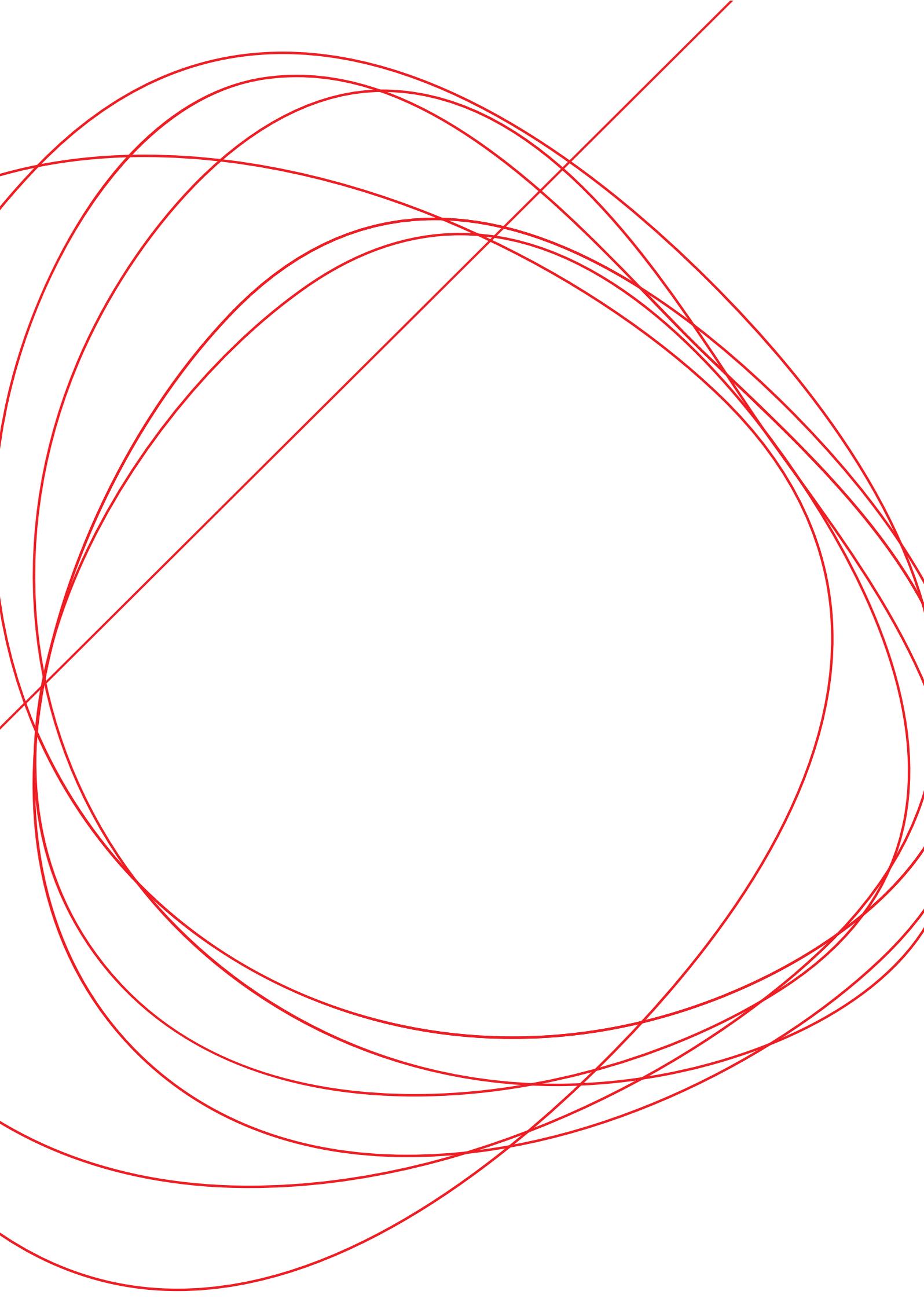
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# TRACK 2

## FOR A “HUMANISTIC” DESIGN: DESIGNING FOR DIVERSITY

The complexity and social and cultural richness of the contexts in which a project should take part makes a humanistic approach more useful in giving quality to the form of artifacts, spaces, services and connections. This section seeks to explore design experiences in different contexts and subjects with strong cultural content and/or where the process used a humanistic approach, highlighting specific applications and variations for each case.

Total of selected papers  
on this topic: 23 papers

### **The narrative dimension of design diversity**

—— Valeria M. Iannilli, Antonella Penati and Federica Vacca

### **Method Livingston: participatory design methodology in the context of reform of popular environments**

—— Viviane Zerlotini da Silva, Julia Kmit and Raquel

### **Tourism, culture and environment: systemic design relationship - human factors, social and strategic in the royal road territory**

—— Paulo Miranda and Luigi Bistagnino

### **Role of social design: design as agent for improving the quality of life**

—— Erik Silva dos Santos and Eugenio Andrés Díaz Merino

### **Back to design future: design as a key process for re-discovering cultural identities and building future diversities**

—— Paola Bertola, Vittorio Linfante and Massimo Zanella

### **Local sustainable development and design-craftwork intervention model: the case of Laboratório de O Imaginário da UFPE and Artesanato Cana Brava, in Ponta de Pedras, Goiana, Pernambuco**

—— Ana Maria Andrade, Virginia Cavalcanti, Tiberio Tabosa and Germannya D’Garcia de Araújo Silva

**Design by scenarios such as a process of non-synthesis**

\_\_\_\_\_ Paulo Belo Reyes

**Functions of language and strategic design**

\_\_\_\_\_ Michele Schell and Ione Maria Ghislene Bentz

**E-learning, instructional design and project management for developing graphics user interfaces for learning**

\_\_\_\_\_ Janaina Ramos Marcos

**Contextura tradition project: the design as innovation process in fashion and culture**

\_\_\_\_\_ Evelise Ruthschilling and Anne Anicet

**Mediations design in construction online games interfaces for children**

\_\_\_\_\_ Jackeline Lima Farbiarz, Alexandre Farbiarz e Daniela de Carvalho Marçal

**Habitable spaces\_ methodological approaches in 21th century**

\_\_\_\_\_ Wagner Rezende

**The roots of humanistic design in Italy: learning from history to outline future developments of a transdisciplinary culture within design processes**

\_\_\_\_\_ Elena Maria Formia

**Designing in Latin American multiculturalism and miscegenation: a networked design consultancy case**

\_\_\_\_\_ Carlo Franzato, Nora Morales, Patricia Hartmann Hindrichson and Monica Orozco

**Design in diversity: contaminations of territories, knowledges and methodologies: contaminations of territories, knowledges and methodologies**

\_\_\_\_\_ Cláudia Albino and Rui Roda

**Craftsmanship revitalization through the use of local iconographic memory between territorial marketing and social innovation approaches: study case in Amapá**

\_\_\_\_\_ Cyntia Santos Malaguti de Sousa

**Servistos and the local media design in Rio de Janeiro city: the process of creating a network for exchanging services for the city**

\_\_\_\_\_ Daniel Palatnik and Camilla Viana

**The study of urban furniture in a humanistic approach: emotions in the use of the elements of public urban space**

\_\_\_\_\_ Gabriela Pizzato and Lia Buarque de Macedo Guimarães

**Tourism for a sustainable development: network of multidisciplinary knowledge to rediscover the authenticity and the material culture of Torino's territory using systemic design**

\_\_\_\_\_ Marta Carrera and Francesca Arato

**Expanding interior design through social sciences**

\_\_\_\_\_ Agnese Rebaglio, Elena Enric Giunta and Francesco Ruffa

**Inclusive design as an experience: a proposal on the application of tools that may contribute on the inclusive experience of a blind person's visit to a museum**

\_\_\_\_\_ Adriana Bolaños and Airton Cattani

**Contemporary rituals as a field to envision scenarios and tools for the interplay between design and humanities**

\_\_\_\_\_ Giulia Pils

**Inclusive design through knowledge and experience**

\_\_\_\_\_ Mario Buono, Sonia Capece and Pasquale Salzillo



TRACK 2  
selected papers

## The narrative dimension of design diversity

### Valeria M. Iannilli

Politecnico di Milano, Italy

\_\_\_\_\_ [valeria.iannilli@polimi.it](mailto:valeria.iannilli@polimi.it)

### Antonella Penati

Politecnico di Milano, Italy

\_\_\_\_\_ [antonella.penati@polimi.it](mailto:antonella.penati@polimi.it)

### Federica Vacca

Politecnico di Milano, Italy

\_\_\_\_\_ [federica.vacca@polimi.it](mailto:federica.vacca@polimi.it)

In the design thinking, the convergence of many disciplines, most of whom come from the humanities, has always been regarded with a great interest in the dynamics of meaning transfers, practices, methods and tools that renew either the design practices as well as the theoretical debate around them.

This paper focuses on latest theoretical interests that animate the debate within the design disciplines, on the nature of some conceptual tools that design borrowed from the humanities.

Starting from a workshop carried out in the retail design field, the authors will introduce the narrative practices that take place in the project development. In this field the linguistic repertoires, the rhetorical devices of narrative and the dialogical practices become either cognitive and understanding devices as well as construction of sense in order to define a persuasive approach of the new surrounded by the sphere of public feeling.

The transferral of attention towards the qualitative aspects of design, which are difficult to estimate, forces the designer to examine in depth the various possible outcomes. Above all it affirm the idea of diversity as a parameter within which a more fluid and complex form of design functions.

Design today encompasses a proliferation of "micro-stories": a diverse range of personal stories and identities that are fundamental in interactions with the design. The interpretation of contemporary sale spaces coincides with the image of a place that tries to integrate partial and/or functional aspect in a complex process; affected by physical, biological, social, and cultural system that determine its character and nature.

The link with our own space is one space in one of the typical elements of personal experience and today the symbolic/relational dimension does not have to correspond to the material one.

The evocative and symbolic meaning either on the verbal language or on the visual language becomes a sense creator and the main components in building a shared picture of new reality models.

It is interesting to consider design as an example of a particular kind of Knowledge: a kind of narrative knowledge that encompasses a variety of other disciplines including science and legitimises and integrates their contribution through a practical and functional application.

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Santambrogio, A.,(2006) *Il senso comune*, Laterza, Roma-Bari

## Method Livingston: participatory design methodology in the context of reform of popular environments

### Viviane Zerlotini da Silva

M.Sc., Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ zerlotini@oi.com.br

### Julia Kmit

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ julia.kmit@gmail.com

The Argentine architect Rodolfo Livingston devised an alternative method of design in order to meet popular demands and support the participation of users in the planning of space. In addition to meeting the demands of real users, Livingston is interested in considering the social and cultural context in which much of Argentina's poor population build their homes, with scarce resources, in stages, and especially without resorting to technical drawings, illegible, unnecessary to meet minor reforms. The architect is inspired by the relationship between doctor and patient to propose this alternative methodology project. Instead of technical drawings, develops constructive prescriptions, where the "patient", ie, the client holds all the information step-by-step constructive. Thus, the user wins the autonomy to decide what to build will be built and when, while respecting your budget and schedule their own with the help of technical assistance. The intent of the research is to investigate other forms of the professional design environments that can promote quality improvements in homes and workplaces of the poorest parts of the Brazil's population, within the autonomous production. It is understood by autonomous production practices that address users' constructive autonomy on the one hand and the use of advanced building techniques on the other. That is, the building is unattended production mode in which the owners of the built environment and participate in decision-making process at the same time, have access to advanced features. Interested in investigating the autonomous production in retirements homes. In the interest to investigate the inadequate housing, ie housing not provide their neighbors the housing desirable, however, there is no need for the construction of new plants. The main argument of this research is the autonomy of the residents in the determination of substandard housing reforms. User participation in decision-making is essential for obtaining real environments tailored to the demands of users. More than one proposal for the humanist project, the participatory process reveal a political issue: the right of users of the built environment have access to decision-making and production of advanced features in their homes.

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## Tourism, culture and environment: systemic design relationship – human factors, social and strategic in the royal road territory

### Paulo Miranda

PhD student, Politecnico di Torino, Italy  
\_\_\_\_\_ paulo.miranda@polito.it

### Luigi Bistagnino

Professor, Politecnico di Torino, Italy  
\_\_\_\_\_ luigi.bistagnino@polito.it

The objective of this work is to recognize through diversity, cultural and social values present in the of Estrada Real Territory (Royal Road) proposing a systemic design approach, instruments capable of assimilating the relationships inherent in the local tourism and its consequences to the detriment of social and cultural qualities of the territory. The relationship between territory and environment, their diversity and interrelated qualities, reinforce the importance of this exploratory research, as well as the consequences of current and particularly future in regard to the differences which are the points addressed in this study covering the Paths of the Royal Road, “scars” in the Minas Gerais Territory drawn by the Portuguese, slaves and Indians, which portray the state of Minas Gerais in its nearly 1.600km of history and culture.

The specific objective of the proposed study is focused on current analysis of the Territory Royal Road, consisting of ten Tourist Regions, covered in four ways: Path of the Diamond, Path of the Sabarabuçu, Old Path and New Path. Among the current scenario, through a mapping developed with systemic methodology, is observed the specific characteristics of their communities, traditions and their inter-relationships within the territory focused on the process, including its potential for innovation and prospects in the vision of the design.

The study and use of a systemic methodology, linked and established by design relationship, as a discipline and a research tool, assume strategic values and gives an importance to human, social and economic factors, these are fundamental in the processes of activation, promotion and diffusion of innovation in a humanistic point of view. At the end, highlighted systemic design methodology is applied, it is envisaged the creation of a new theoretical scenario for the process, emerging from the cultural specifications, environmental and territorial disposed between the actors and the environment, established in that particular universe of the Estrada Real and its profound influence on the Minas Gerais Culture.

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## Role of social design: design as agent for improving the quality of life

### **Erik Silva dos Santos**

Graduate student, Universidade Federal de Santa Catarina, Brazil  
\_\_\_\_\_ dossantos.erik@gmail.com

### **Eugenio Andrés Díaz Merino**

Doctor, Universidade Federal de Santa Catarina, Brazil  
\_\_\_\_\_ merino@cce.ufsc.br

The design is a potentiator of the economy, since it takes into account the context whose product is inserted, the aesthetics, functionality, cost-effectiveness and market competitiveness. However, the design has a role that goes beyond the tangible aspects relating to a product or service - it acts as an agent for improving the quality of life of society.

To Bonsiepe (2011), the design focuses on the operational nature or performance of the material and semiotic artifacts, in the role and function not in terms of physical efficiency, such as in engineering, but in terms of behavior embedded in a dynamic cultural and social . Ferro (2003 apud Martins and Merino, 2011) presents studies on inclusive design, universal design, sustainable design and social design and ensures that the design does not act only on the economic, but also includes changes that bring quality of life for all. The social design, rescue the essence of design, which includes areas such as communication, marketing, ergonomics and psychology, to achieve not directly, but intricately building, a new way of thinking and acting.

Given this multidisciplinary, social design absorbs the identity and culture of their study group and seeks to solve the problem that affects that particular pole. In the Amazon, for example, the term is directly linked to the craft because the identity and culture spread Amazon has a great relationship with the indigenous way of life, and whose main activity is the internationally known craft. The creativity that characterizes a people, the materials and techniques used in developing a product, they reflect the identity and the richness of its culture, thus providing not only the functionality of it, but as a complete user experience - that Allied communication, and affective memory, the second is the concept of emotional design, the simplest way to develop the relationship between a product and its user.

Regardless of the development process, the design (as a whole) must have the role to develop social changes and be a transforming agent in the reality of society. Thinking thus, this study shows notes of how the design works as a potentiator social and cultural identity for forming a social group or community.

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## Back to design future: design as a key process for re-discovering cultural identities and building future diversities

### Paola Bertola

Professor, Politecnico di Milano, Italy  
\_\_\_\_\_ [paola.bertola@polimi.it](mailto:paola.bertola@polimi.it)

### Vittorio Linfante

Professor, Politecnico di Milano, Italy  
\_\_\_\_\_ [vittorio.linfante@gmail.com](mailto:vittorio.linfante@gmail.com)

### Massimo Zanella

PhD, Skira Publisher, Italy  
\_\_\_\_\_ [massimozanella@gmail.com](mailto:massimozanella@gmail.com)

Passing through the changing paradigm of post-modernity our society are now mature for looking at our identities in a different way.

All the second phase of 20th century has been devoted in trying to understand globalization phenomenon and more recently to avoid the loss of differences that many aspect of globalization was generating in our contemporary societies. Design played a consistent role in the evolution of material culture and supported homologation processes though which same products, services, languages were diffused by global corporations with no interest for local cultures and differences. More recently a new attention for different territorial environments, cultural roots and original heritages has aroused. This attention is demonstrated by a new interest in promoting products, services, languages with a strict connection with local contexts and by the search for involvement of local user communities in co-creating product values.

Incorporating cultural roots and heritage in new products/services is now becoming more and more an asset for competition in a changing and mature market looking for diversity and "specialties" more that for homologation.

The present study is driven by three experts respectively in design, visual languages and arts and re-built a map of cultural identities in Europe with a focus also on South America and Japan as key-cases outside European Continent.

Starting from artistic heritage and the most important cultural events in any given contexts - Northern Europe, Mittel Europe, West Europe, Mittel West Europe, Southern Europe, Brazil and Japan - the paper gives a new framework for reading contemporary design. A net of connections between architecture, graphic, industrial design, fashion design is shown as a unique expression of any local contexts, still existing in contemporary products and artefacts and being revitalized by the most advanced design experiences.

In this perspective design becomes a strategic resource on both a cultural and business point of view for exploring and giving new life to cultural identities and, at the same time, for embedding authenticity and diversity in new products competing in contemporary “long tail” markets.

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## Local sustainable development and design-craftwork intervention model: the case of Laboratório de O Imaginário da UFPE and Artesanato Cana Brava, in Ponta de Pedras, Goiana, Pernambuco

### Ana Maria Andrade

M.Sc., Universidade Federal de Pernambuco, Brazil  
\_\_\_\_\_ anamariadeandrade@gmail.com

### Virginia Cavalcanti

Doctor, Universidade Federal de Pernambuco, Brazil  
\_\_\_\_\_ cavalcanti\_virginia@hotmail.com

### Tiberio Tabosa

M.Sc., Universidade Federal de Pernambuco, Brazil  
\_\_\_\_\_ tiberio.tabosa@oimaginario.com.br

### Germannya D'garcia de Araújo Silva

M.Sc., Universidade Federal de Pernambuco, Brazil  
\_\_\_\_\_ ge\_sesi@yahoo.com.br

The concepts of sustainable development, considering local talents, elevating social opportunities and local economical competition, assuring the conservation of natural resources, focuses on the improvement of the populations life quality in small territorial unities.

In this scenario, knowledge and technological resources are fundamental for competitiveness and value in products and services. The advantages, considering quality and cultural references, can be stronger, if associated with design. Craftwork has a potential that goes beyond artifact. It's an activity that helps with social inclusion, creating wage and articulation of productive groups.

This article discusses the relationship between craftwork and design through the intervention of design in the folk art, by the Design Laboratory O imaginario- UFPE, with the concepts of local sustainable development by analyzing the history of the productive group "Artesanato Cana Brava" between 2003 and 2012.

The intervention model focuses on the binomial artisan - community and synthesizes the Laboratory's dynamic that considers the continuous movement, divergent and convergent of the community's reality, in order to structure its actions anchored on: design, communication, production, management and market. The concepts of quality and sustainability guide the actions and interfere on the economical, socio-cultural and ecological environment.

Some results like: artisan group formation, empowerment of the leaderships, the education and introduction of technological resources on artifacts and the use of computers and internet, help

with the articulation and recognition of local authorities and sustainability of the Artesanato Cana-Brava group.

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## Design by scenarios such as a process of non-synthesis

**Paulo Belo Reyes**

Doctor, Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ reyes@unisinos.br

This paper shows the results of a research that investigates the design processes in complex environments by design approach. Complex environment means the urban territory. The territory is conceived as a space of encounter and confrontation of differences, cultural differences and ways of living and the general standards that coexist in the city. Any design action on the territory must be regarded as a discourse “of” and “about” the city that cannot be finished or closed in synthesis, because the synthesis is a social exclusion process. The methodology for this research is the strategic design. The design strategy has innovated the design processes at least two ways: in the construction of a preliminary step of project that allows reflection on itself and on their feasibility – metadesign; in a multiple outcome in this stage through the construction of possible scenarios. The focus of this paper is the understanding of the scenarios as an alternative to non-synthesis of the design. The aim is to build theoretical premises that supports a reflection on the design in a direction of non-synthesis. In this conception on the evidence of the conflict, the design contributes in dialogue with other fields, by design action. Unlike some conceptions in which the design is seen as an act of synthesis, in this paper it uses the concepts of “metadesign” and “design by scenarios”, to set up the notion of non-synthesis. The concept of metadesign increases the complexity of the project by the openness and amplitude of the initial problem. The design by scenarios is a methodology that allows and fosters the strategic conversation. In this perspective of non-synthesis, design acts as a reflexive action of the project that conceives the territory in a way that is open and flexible. In this manner, the presence of urban life conflict is expressed in values and vectors that are represented by provisional models.

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## Functions of language and strategic design

### **Michele Schell**

Graduate student, Universidade do Vale do Rio dos Sinos , Brazil  
\_\_\_\_\_ michele.schell@gmail.com

### **Ione Maria Ghislene Bentz**

Doctor, Universidade do Vale do Rio dos Sinos, Brazil  
\_\_\_\_\_ ioneb@unisinos.br

Strategic Design, linked to transdisciplinary, participative design activities aiming to the incorporation of new organizational ideas connected to the creation of meaning through communication, can also modify people's behavior and motivations, such as cultural, symbolic and ritualistic aspects – to sum up, everything related to human activity. Interferences like these may occur when a product or a service changes, when it is innovated, when it starts to make sense and changes the way people – and the groups they belong to – think and act. Symbolic meaning, then, is created. But how is it diffused, accepted and resignified?

Society sees how the world works through the media. Technical mediation devices – such as the radio, television and the Internet – adjust perception, change the way people see the world. Therefore, resignification occurs when common sense is changed. There is a need for Design to attend to constantly changed symbolic issues attached to culture by trying to understand organizational culture contexts.

Therefore, this paper aims to discuss inputs regarding symbolic representations by using Jakobson's language functions model. Regarding views on how Strategic Design works on creating meaning and how media sets and transforms culture, it has come to our attention that the model could be used to analyse a prostitution NGO that seeks for a change of paradigm as its outside perception is stereotyped due to common sense knowledge. Taking semantics into consideration and how impossible it is to live outside of language, communication plays an important role in expressing messages that are interpreted by an addressee – it is the addresser's role to organize elements in order to set the tone of the sent message according to his intentions.

In order to understand symbolic factors of language, we have chosen Jakobson's (2000) model in which a few functions are essential to comprehending a message: emotive (related to the addresser), referential (related to the context), poetic (related to the message itself), phatic (related to the medium), metalinguistic (related to the code used) and conative (related to the addressee).

By analysing language and its symbolic representations and meanings, it would be possible to understand organizational contexts in design projects. It is proposed further data analysis in order to create a hybrid model that can be useful to the actors involved in the metaproject phase in order to ease organizational symbolic comprehension.

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## E-learning, instructional design and project management for developing graphics user interfaces for learning

**Janaina Ramos Marcos**

Graduate studente, Universidade do Estado de Santa Catarina, Brazil

\_\_\_\_\_ jana.ramosdesign@gmail.com

This article aims to survey the main issues related to distance education, instructional design and project management, in order to plan graphical user interfaces focused on online learning. In recent years, has been checking the growth of technological devices in the market and the consequent exponential increase of supply and demand for training courses and learning in distance mode and online. Distance education is still at an early stage in Brazil but with the huge demand for training courses in Brazil, largely due to the large enterprises in the coming years and the inclusion of a greater number of students, teaching eachonline increasingly need the tools and the application of the fundamentals ofproject management in the design and instructional design of teaching materials and learning objects for learning. The Instructional Design is a design process and project development for distance education, presenting in the form oftextbooks, the customization of virtual learning environments and tutoring systemsbuilt to support the student in order to optimize learning and acquiring informationin certain contexts. It is necessary that the designer, together with multidisciplinary teams, and develop appropriate teaching materials that can meet the educational needs of a growing number of students.

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## Mediations design in construction online game's interfaces for children

### Jackeline Lima Farbiarz

Doctor, Pontifícia Universidade Católica do Rio de Janeiro, Brazil  
\_\_\_\_\_ jackeline@puc-rio.br

### Alexandre Farbiarz

Doctor, Pontifícia Universidade Católica do Rio de Janeiro, Brazil  
\_\_\_\_\_ alexfarbiarz@terra.com.br

### Daniela de Carvalho Marçal

MSc, Pontifícia Universidade Católica do Rio de Janeiro, Brazil  
\_\_\_\_\_ daniela@studiozero.com.br

The fact that children are dominating and interacting with complex technologies each time earlier in situations that were once restricted to adult's universe, such as the Internet, seems more evident in society today. We regard that new technologies are changing the way the social relations are formed and developed, as much as their meanings. We understand that the contemporary children are immerse on those new relations and are, in this context, creating their identity and becoming subjects of this society. The main issue of this paper is the designer's role as mediator in children's processes language, identity and meaning development as they interact with online game's interfaces for children. We observed a group of children between 10 and 11 years, residents of Rocinha and Vidigal communities, in South Zone of Rio de Janeiro, during their activities in the Khouse project, hosted by the Informatics Department of Pontifical Catholic University of Rio de Janeiro. We conclude by understanding the role of design as a maintainer of myths and stereotypes, and indicate it is vital to reflect on his place as a promoter of new concepts and acquisition of knowledge of the child in its relationship with the Internet.

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## The roots of humanistic design in Italy: learning from history to outline future developments of a transdisciplinary culture within design processes

**Elena Maria Formia**

Professor, Politecnico di Torino, Italy

\_\_\_\_\_ elena.formia@polito.it

What is the common thread linking the “futuristic” interiors designed by Joe Colombo in the late 1960s and the “Valentine” typewriter commissioned by Olivetti to Ettore Sottsass in 1968? Between the household goods by Gino Colombini for Kartell (1953-1962) or the collections of objects by Enzo Mari and Bruno Munari that Danese produced from the end of the 1950s and the magazine “Civiltà delle Macchine” founded by the poet-engineer Leonardo Sinigaglia in 1953?

They are all products that belong to Italian design history after World War II. But they are also products that can be interpreted as the embodiment of a humanistic approach and humanistic knowledge; artifacts in which the integration of design with social sciences and humanities took concrete form. There are many possible interpretations of the nature, means and dynamics of this cross-fertilisation. For example: “designer-humanists” who gave material form to “visions” coming from literature and sociological studies; products conceived for a new user-centered design through a change of scale, from the realm of community services to that of the home; companies that succeeded in building an entrepreneurial culture focused on people and society; transdisciplinary teams whose work fostered the incorporation of different branches of knowledge into the project; products conceived as bearers of memories, history, civil values; participative design processes that involved also the end-users; research centers that brought together the “two cultures” by stimulating a dialogue among writers, technicians, artists, critics, designers, sociologists, and philosophers.

Through qualitative research focusing on companies, designers and products manufactured in Italy after World War II, the paper endorses the hypothesis that there exists a humanistic dimension based on the predominance of immaterial values and meaning (i.e. the soft qualities of products) as a constant element of an “Italian way” of operating within modern design culture. This interpretation is used to observe the phenomenon of Made in Italy under a different light, contextualizing it within the global productive and consumption systems.

The hypothesis is discussed and documented at two levels:

- The selection and critical analysis of case-studies coming from Italian post-war design experience to understand how the humanistic component contributed to the construction of meaning and the materialization of design processes, products, companies and communication systems.
- The identification of “artefact paradigms” and the investigation of their possible relevance in the contemporary market, to form a basis (or methodological frame) for this transdisciplinary exchange in the future of design culture.

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## Designing in Latin American multiculturalism and miscegenation: a networked design consultancy case

### Carlo Franzato

PhD, Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ cfranzato@unisinis.br

### Nora Morales

MSc, Universidad Autónoma Metropolitana, Cuajimalpa, MX

\_\_\_\_\_ noramorales@insitum.com

### Patricia Hartmann Hindrichson

MSc, Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ patricia@design4sense.com

### Monica Orozco

Graduate, Universidad Nacional Autónoma de México, MX

\_\_\_\_\_ monicaorozco@insitum.com

According to Bonsiepe, the central issue for development in Latin America is the capability of evolving its own technology autonomously (1980). In the design discourse, it means the capability of evolving design as a process (Celaschi, De Marco et al., 2008), so as to constitute a technology for the innovation of the organizations.

In this direction, the paper aims at discussing the possibility to explore the diversity of Latin American cultural background, in order to evolve original design processes.

Countries as Brazil and Mexico are characterized by multiculturalism or real miscegenation. Practicing design in these countries with the consciousness of their cultural idiosyncrasies could indicate new ways of designing (De Moraes, 2006). However, this is possible only through collaboration between design and humanities.

We study the case of a research and design process, developed by in/situm, a networked design consultancy that is located in Mexico City and has branches in São Paulo, Bogotá, Buenos Aires and Chicago.

A US leading software company commits to in/situm a project to delve into the Latin American educational context and propose new ICT-based services. The consultancy applied a special practice, frequently used to create global products, that starts with simple translations in order to identify cultural differences, towards a deeper understanding of people in different places. (Quesenberg & Szuc, 2012). This practice was very helpful to unlock cultural perceptions and norms of the local markets and to understand how these ones are affected by changes from other forces of globalization.

Finally, considering the reasons why a US software company has not committed this project to a design consultancy of its US portfolio, but to a Mexican one, we point out that consultancies based in the main cities of Latin America could serve as strategic gates for foreign corporations entering in the local market. This design consultancies function of transferring technology or prospecting new markets is well known (Bertola & Teixeira, 2002). Furthermore, the original contribution of this paper is the interpretation of the design consultancies as a link between humanities and technology, demonstrating and evolving the theoretical model of design as a mediator between knowledge systems (Celaschi & Formia, 2010).

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## Design in diversity: contaminations of territories, knowledges and methodologies: contaminations of territories, knowledges and methodologies

### Cláudia Albino

M.Sc., Universidade de Aveiro, Portugal  
 \_\_\_\_\_ claudia.albino@gmail.com

### Rui Roda

PhD, Universidade de Aveiro, Portugal  
 \_\_\_\_\_ rui.roda@me.com

This reflection results from an analysis of two emblematic case studies where the practice of the contamination of territories, knowledges and their different ways of intervening present themselves to us as functioning variables within a complex, dynamic process with an unstable nature that boosts the creation of values and of accesses to experiences.

In this reflection, the thoughts about contemporary socio-cultural contexts – resulting from the social practices of our days and from the continuous acceleration of the “sense of time” – give rise to an opportunity dedicated to the understanding of the existence of a new space, which is now headed by possible, individual and independent micro itineraries. In this way, we introduce the opportunity to access individual projects with “multiple affiliations” that simultaneously redesign urban spaces (dynamic) and rural spaces (static); these spaces coexist, contaminate and complement each other, building the urban and “transgenic” territories of our days.

By being aware of this dynamic and multicultural space, it will be possible to consider a traditional design practice intervention limit identifying, in this way, an opportunity that challenges a useful reflection for design and the nature of new disciplinary practices.

Design reveals itself as a context-dependent relational cultural mediator; so the need to activate its skill as great holistic translator, turning to heuristic and to the exercise of abduction, using the metaphor as a seduction methodology, is underlined.

By looking at the case studies, it will be possible to understand practices of the disciplinary exercise of Design, where the importance of turning to techniques and methodologies that find their origin in art and social sciences is visible.

The moment will come when the “meta-text” and the “open work” are introduced; these are concepts that foresee the ability to interpret, in different contexts, various signifiers of the same meaning, anticipating the opportunity in which it will be possible to amplify the flexible models that allow achieving the intelligibility of a certain culture’s practice by another culture, enabling the establishment of the desired dialogues between local and global cultures. The two analyzed case studies show that transdisciplinarity, through the contamination of methodologies, may create new spaces which are very favorable to innovation and creativity. So, design may be understood as a leader, through a thought or an intervention proposal, where repetition gives rise to choices in constantly mutating processes, building in this way its ability to activate identities within diversity.

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## Craftsmanship revitalization through the use of local iconographic memory – between territorial marketing and social innovation approaches: study case in Amapá

**Cyntia Santos Malaguti de Sousa**

Doctor, Universidade de São Paulo, Brazil

\_\_\_\_\_ [cyntiamalaguti@uol.com.br](mailto:cyntiamalaguti@uol.com.br)

Each time it happens more frequently in Brazil, that designers work together with artisans communities, in activities focused on craftsmanship repositioning in the market. According to the context and expectations involved, different aspects are emphasized in these interferences, such as local raw-materials and references from ancestral iconography use; resources optimization in product development ; creation of visual identity, packaging and other commercial graphic pieces; and even changes in products design. Such activities, in general, has been undertaken as a result of the initiative and with the financial support of institutions devoted to small enterprises development, aiming also at income generation, strengthening the self confidence of the artisans and local identities, from a perspective of place marketing.

Many designers embrace this kind of activity not only as a professional service, but as an opportunity for social compromising, hoping to contribute to these artisans communities organization and to improve their living conditions. But to what extent this is a naïve approach?

Among the Brazilian institutional initiatives that counted on designer's participation in the XXI century first decade, some of them involved researches focused on identifying local iconographic references that could be used in local contemporary craftsmanship. These experiences received a lot of criticism because in a certain way the surveying was too superficial, without predefined and clear criteria; on the other hand, they not just showed the references, but nearly suggested some applications, inducing the artisan to a mimetic work, without a thoughtful appropriation process of the references. Finally, the designers-artisans interaction interfered, maybe unconsciously, in the artisans working dynamics and flow, and the consequences of that were not followed neither analyzed.

Having observed the results of and criticisms made on such experiences, SEBRAE-Amapá decided to work with local iconography in a little different way. The study of the iconographic references from two extinct indigenous civilizations that lived in Amapá before the Portuguese arrival in Brazil: the Maracá and the Cunani people. The history and cultural legacy of both, mostly expressed in their ceramic artifacts, although very rich, were nearly unknown, even among the local inhabitants.

In this article, after presenting the above mentioned study case, the designers participation is analyzed, as well as its impacts on the other local actors involved. Furthermore, it discusses the aspects of social innovation during and after designer's interaction, aiming to contribute to the debate on the relevance, the meaning and the designer's role in such initiatives.

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## Servistos and the local media design in Rio de Janeiro city: the process of creating a network for exchanging services for the city

### Daniel Palatnik

Pontifícia Universidade Católica do Rio de Janeiro, Brazil  
\_\_\_\_\_ danielpalatnik@gmail.com

### Camilla Viana

Pontifícia Universidade Católica do Rio de Janeiro, Brazil  
\_\_\_\_\_ millaslotfeldt@gmail.com

Rio de Janeiro is a city that has been going through an important phase of internal development. Such development, nevertheless, happens among failures and successes, with high impact measures being constantly applied amid the population and entire communities being confronted with new ways of living and new rules. As a result of these, different kinds of communication gaps breach between different classes and institutions, leaving demands unattended as well as institutions in misuse.

This article presents the entire process of conception and development of Servistos project, a network for exchange of services designed over Rio de Janeiro's environment. Aimed at becoming a functional infrastructure layer, the network has been developed among a series of experiments of dialoging with local types of media. The purpose is to create a common environment for different groups seeking common interests, acting as a "bridge" between them.

During four months, visits were regularly made at communities and institutions in the city, having one particular favela as a base for research. The initial research methods varied between direct interview and participant observation. Through them, we're able to identify the provision of services as strategic, not only for the lack of existing infrastructure, but also for the participation in large scale of both the poorest and richest groups in the city. Following that, a research for similar projects began, going through sequential analysis and then the isolation of essential characteristics for their proper functioning. Those were then rethought in light of the field data, and then prototypes were made based on these variations - narrowing the alternatives down to the ones with the best environmental response.

We believe this article might serve as an accurate example of practical application of important theoretical lines in discussion, such as the design for locality. We also hope that its results might represent a long term gain to the city's population.

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## The study of urban furniture in a humanistic approach: emotions in the use of the elements of public urban space

### Gabriela Pizzato

M.Sc., Universidade Federal do Rio Grande do Sul, Brazil  
\_\_\_\_\_ gabrielazap@terra.com.br

### Lia Buarque de Macedo Guimarães

Doctor, Universidade Federal do Rio Grande do Sul, Brazil  
\_\_\_\_\_ liabmg@gmail.com

“In the search for cultural identity, it is natural to let us fix the things that set us apart from others, rather than those that unite us.”

Dylan Evans (2003)

Classic sociologists, such as Durkheim and Simmel, have made important contributions for the study of emotions not to be a subject exclusive of psychology in which they are thought as an internal, subjective and non-social state. Those authors show in their studies that there are feelings that are developed in social relations and have significant effects on the interactions and collectiveness broadly (REZENDE & COELHO, 2010). It is in this context that this work addresses the study of emotions regarding issues related to the social science, design and urbanism fields – the emotions in the use of public urban space and its urban furniture. The qualitative study was carried out using the Participant Observation as a tool; and the investigated urban setting was the main avenue in the tourist town of Gramado, located in a mountain region of Rio Grande do Sul, which was recently restructured with improvements in the infrastructure, including the setting up of new urban furniture with features that enhance the region’s culture. For two years, three hundred interviews were conducted in loco, where the participant users were identified and classified into two main groups: external users – residents and tourists (from Rio Grande do Sul State and other Brazilian states and from abroad) and internal users (shopkeepers, traffic guards, street keepers and cleaners). By comparing the perceptions from the two groups of users, the results show the identification of positive and negative emotions in the interaction among the user, furniture and urban context; also, it must be emphasized the importance in the relation between the product (furniture) and environment (urban space), and the cultural diversity of the interviewees coming from different parts of the country and from abroad.

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## Habitable spaces: methodological approaches in the 21th century

**Wagner Rezende**

M.Sc., Universidade Federal de Minas Gerais, Brazil

\_\_\_\_\_ wagnerrezende@hotmail.com

In the beginning of 21th century, László Moholy-Nagy (at Bauhaus) attempts to persuade us to face the most diverse definitions of space in opposition to the organic experience in order to capture it's more concrete meaning. As a matter of fact, since 19th century, the researchers and designers have confronting those old spatial relationships against new concepts and visions of inhabitable space. In the next future, the dwellings interior spaces tends to be converted into an ubiquitous and dematerialized entity as much the proper technologies that support us in nowadays.

This article aims to investigate the contemporary's methods of production of new ambiances from a critical perspective: the overlapping of the tectonic space by the sensorial space. In one side, the house as interface of computational systems, new materiality and space syntax. In other side, the home (the oikos), component of a new urban ecology, reflects the behavior of users ahead of the purely technological and informational possibilities.

The focus of this research is the study of the development of new habitable ambience as critical opposition to the idea of house as materialization of the dominant digital technological interface. Confronted to the possibility of reconfiguration of the traditional homes according to the interaction with the new digital medias, the inhabitants, immersed in a digital universe where they converge diverse medias, technologies and instruments of virtualização, can use digital information and communication nets in order to gathering the proper experience, independently of the ambient condition.

It's known the overlapping of two necessary and important ambience conditions for our investigation: the tectonic space and the sensorial ambience. It makes us to consider the urgency in analyzing and reviewing the design practice in order to fabricate inhabitable spaces besides the new technologies and usual materials available presently.

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## Contextura tradition project: the design as innovation process in fashion and culture

### Evelise Ruthschilling

Doctor, Universidade Federal do Rio Grande do Sul, Brazil

\_\_\_\_\_anicet@ufrgs.br

### Anne Anicet

PhD student, Universidade de Aveiro, Portugal

\_\_\_\_\_anneanicet@hotmail.com

Contextura is a sustainable textile research studio that promotes the Contextura Tradition Project. The conceptual project base is on the design as a transdisciplinary process, integrating productive and creative chains of fashion, understood as an articulator element of cultural reaffirmation. The project proposes design experiences in a cooperative and inclusive way to the actors of this scenario, that are producers, benefactors and dealers of sheep wool; artisans, textile industry, designers and fashion consumers. The challenge is to design fashion collections that express cultural values, without being folkloric, but on the contrary, develop a gaucho fashion that is in compass with the global fashion. The project aims to explore the rich Gaucho identity as a strong cultural content, designing for diversity and innovation of systems-products economically viable but aligned to the humanistic and sustainable approaches. The project is targeted to innovation and product development of fashion originals, rescuing qualities from tradition and promoting new experiences and symbolic exchanges. The methodologies used overlaps strategies of the creative process, product design and scientific research of qualitative nature. The theoretical results of the applied research and the produced artifacts represent the diversity between traditional and contemporary, local and global, craft and technological and simple and complex. In this context, it is expected social, cultural, and theoretical and practical design gains.

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## Tourism for a sustainable development: network of multidisciplinary knowledge to rediscover the authenticity and the material culture of Torino's territory using systemic design

### Marta Carrera

Politecnico di Torino, Italy

\_\_\_\_\_ marta.carrera@studenti.polito.it

### Francesca Arato

Politecnico di Torino, Italy

\_\_\_\_\_ francesca.arato@gmail.com

The aim of the project is to demonstrate how tourism, through a Systemic Design approach could be one of the driving forces for the retrieval and the development of the Torino territory's authenticity.

Tourism could be considered as one of the major driving forces to benefit local communities, economically and socially: for this reason it could rise awareness and support conservation of the environment and traditions. Over the decades, tourism has experienced continued growth becoming one of the most important players in the international commerce. This growth goes hand in hand with an increasing competition among destinations, pressure on host communities and loss of local traditions. Such factors conduct the territory to become just a scenery representation with the only aim to satisfy the tourism requests with the consequent impoverishment of the material culture.

To concretize these issues this project focuses its research on the Torino e Provincia's territory, like an interesting case study in which the above mentioned standardized tourism coexist with some environment oriented good practices.

The analysis goes through the main tourism's sectors: accommodation, transportation, commercial facilities, events, monuments and museums, communication networks and primary resources. In these fields, the noticed criticalities become the starting point for the change in the tourist values' system.

Using the Systemic Design approach a multidisciplinary net is created through the dialog, the know how exchange among the tourism's actors.

The new delineated productive system, using local resources and creating new interactions among the players of the context, guarantees the authenticity of the territory and the diversity that characterizes it.

In this way the host-community rediscovers the typical traditions and becomes a means of information handing them down to the visitors so that they would be able to understand the local culture.

The tourist in this perspective becomes traveler, with an active role in the host society and starts to feel a shared responsibility and a consciousness respect for the territory and the host community.

The traveler figure doesn't seek global and standardized offers, but understands the local identity and bring with himself the knowledge and the local now how after a learning process.

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## Expanding interior design through social sciences

### Agnese Rebaglio

Politecnico di Milano - INDACO Department, Italy Italy  
 \_\_\_\_\_ agnese.rebaglio@polimi.it

### Elena Enric Giunta

Politecnico di Milano - INDACO Department, Italy  
 \_\_\_\_\_ elena.giunta@polimi.it

### Francesco Ruffa

PhD student, Politecnico di Milano - INDACO Department, Italy  
 \_\_\_\_\_ francesco.ruffa@mail.polimi.it

Designing a home that is not a home but would aspire to be so for a short time, answering to different and lots of cultural calls related to multi-ethnic living, are hard challenges which design could take up with humanities essential contributions. The paper would explain the first results of a research led by a multi-disciplinary group of designers, social workers and environmental psychologists. The research is focused on the quality of the Italian centres for refugees. The ephemeral nature of the settlement in the centres and the variety of identities of the tenants because of the multi-ethnic and multi-identity turn over, require tools, processes and knowledge from wide disciplinary contexts.

How could design and humanities answer to the cultural diversities implied in this state of living? How could design comprehend the environmental psychological concept of place-identity [Proshansky, 1978] into temporary places? How could design, from a social condition of dis-location and displacement [Papadopoulos, 2002], offer a new location, a new place?

Starting from the three main elements of living [Canter, 1974; Vitta, 2008] – bodies, spaces, objects – the study aims to explore how space's physical qualities could enhance the cultural integration that is promoted in reception centres. The 3 places' basic elements are expanded into a wider concept of hospitable capability, with the contribution of social and psychological sciences: bodies & privacy vs collective spaces + spaces & attachment vs temporariness + object & personalization vs standardization. This approach aims to answer to the call of places able to comprehend and open to cultural diversities that have to live together. The quality of space is not neutral in the process towards a social integration.

The paper maps a wide range of case studies of hospitable and open-cultural places, in order to outline addresses for an extended interior design characterized by a humanities centred approach.

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## **Inclusive design as an experience: A proposal on the application of tools that may contribute on the inclusive experience of a blind person's visit to a museum**

**Adriana Bolaños**

Universidade Federal do Rio Grande do Sul, Brazil

\_\_\_\_\_ adrianabmora@gmail.com

**Airton Cattani**

Doutor, Universidade Federal do Rio Grande do Sul, Brazil

\_\_\_\_\_ aacc@ufrgs.br

The main subject of this research work has been developed in the field of the Inclusive Design (ID), which seeks to contribute to the non-discrimination and social inclusion of everyone through the development of products and services that could be adequately used by people of different capabilities (FALCATO; BISPO, 2006). This paper's main motivation is how to satisfy the needs of a person suffering from functional diversity from the ID perspective (PALACIOS; ROMANACH, 2007). The objective being to project the museum as an inclusive space through external assistance and the person's personal experience by means of a phenomenological methodology. This research work is based on the fact that people ought to be placed on the spotlight, ought to behold the world through their eyes and feel with their feelings (PRESS; COOPER, 2009).

A referential framework of the possibilities of producing inclusion and integration via sensorial stimuli of the blind people in the museum environment was created from some inclusive experiences (carried out in four Latin-American museums and exhibitions). This framework allows us to analyze the way how sensorial stimuli may complement the blind person's visit to the museum, especially the tactile and auditory stimuli. For this reason, a prototype serving as the base of this research execution was created. A replica, twice as big as the original, of a precolombine piece was made by the use of a tridimensional scanner using materials that could produce a life-like tactile reaction (90% copper and 10% gold). The replica includes an audio description, previously recorded and digitalized.

Data collection was made from February through March 2012 following the principles of the phenomenological interview proposed by Thompson et al. (1989). In order to carry out the collection semi-structured interviews were made in which the interviewees were able to express freely. The data collected was descriptively and analytically analyzed by means of dialogue with the selected authors. Four people with visual deficiency with ages ranging from 25 to 45 years participated in the research. The subjects were contacted via e-mail through the group INCLUIR from the Universidade Federal do Rio Grande do Sul.

The primary analyses allowed us to conclude that procedures like this one offer the blind people the possibility of enjoying as other visitors would do, as well as some independence when visiting a museum. Finally, it may contribute to the Inclusive Design in addition to other fields such as Museology.

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## Contemporary rituals as a field to envision scenarios and tools for the interplay between design and humanities

**Giulia Pils**

Politecnico di Milano, Italy

\_\_\_\_\_ giulia.pils@gmail.com

As designers we have come full circle in our quest to address the issue of the relation between exact sciences and the traditional humanistic knowledge. The pressing social issues that confront a networked global culture –such as the relation between local and global– call for broad and reframed design approaches capable to bear new tools and methods in order to envision scenarios for complex problems.

This paper aims to relate an ongoing PhD research on contemporary rituals intended as fields to envision scenarios for the interplay between design and humanities exploring a series of significant experiences in which the effective collaboration between the two disciplines produced significant results.

Today the use –and abuse– of terms such as «rite» and «ritual» turn on again the attention on a practice whose presence seems to have become pervasive both on the private and the public sphere. Despite the difficulty to acknowledge a defined definition it is undisputed to consider rituals both as founding moments for the construction and maintenance of social harmony and tools to enable the important exchange between uniqueness and universality that are so fundamental to build connections between diversities. Rituals are essential by the fact that contribute to social cohesion and encourage a sense of identity and responsibility which helps individuals to feel part of a community and of a society at large. To recognize such important role and complexity to the ritual identifies a field of exploration of great interest for the design discipline and highlight the need to refine tools and practices in order to decode the ritual genome and improve the social and economic value of this transmission of knowledge.

The aim of this contribution is to demonstrate that design strategies are the key to improve the power of rituals both to provide such sense of identity and to emphasize distinctive features of a specific community to an universal scale.

Under the design ability to work outside the rigid logic of fields and by its very nature of boundary discipline, it is possible to work for and with anthropology identifying a set of tools that bring added value to the process of identification, interpretation and reinvention of contemporary rituals. With the ritual as a field of action the research underline a back-and-forth process to support and implement the collaboration and the crossbreeding between the professional figure of the designer and the anthropologist producing original analytical tools and research models.

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## Inclusive design through knowledge and experience

### **Mario Buono**

Università degli Studi di Napoli 'Federico II', Italy

\_\_\_\_\_ maibuono@tin.it

### **Sonia Capece**

Università degli Studi di Napoli 'Federico II', Italy

\_\_\_\_\_ soniacapecce@virgilio.it

### **Pasquale Salzillo**

Phd student, Università degli Studi di Napoli 'Federico II', Italy

\_\_\_\_\_ pakos811@libero.it

The project documents an inclusive design experience made of signs, languages and dialogues among different humanistic disciplines, as well as scientific and technological disciplines.

The contamination of knowledge, of methodological and scientific references adopted according to logical criteria and systematicity, permitted the construction of new inclusive design itineraries centered on man as a physical, psychological, social and emotional entity, starting from the condensation and interpretation of knowledge, experiences and creativity in relation to environmental, instrumental and organizational conditions, and through synergy of different types of identification languages supported by sensorial experiences.

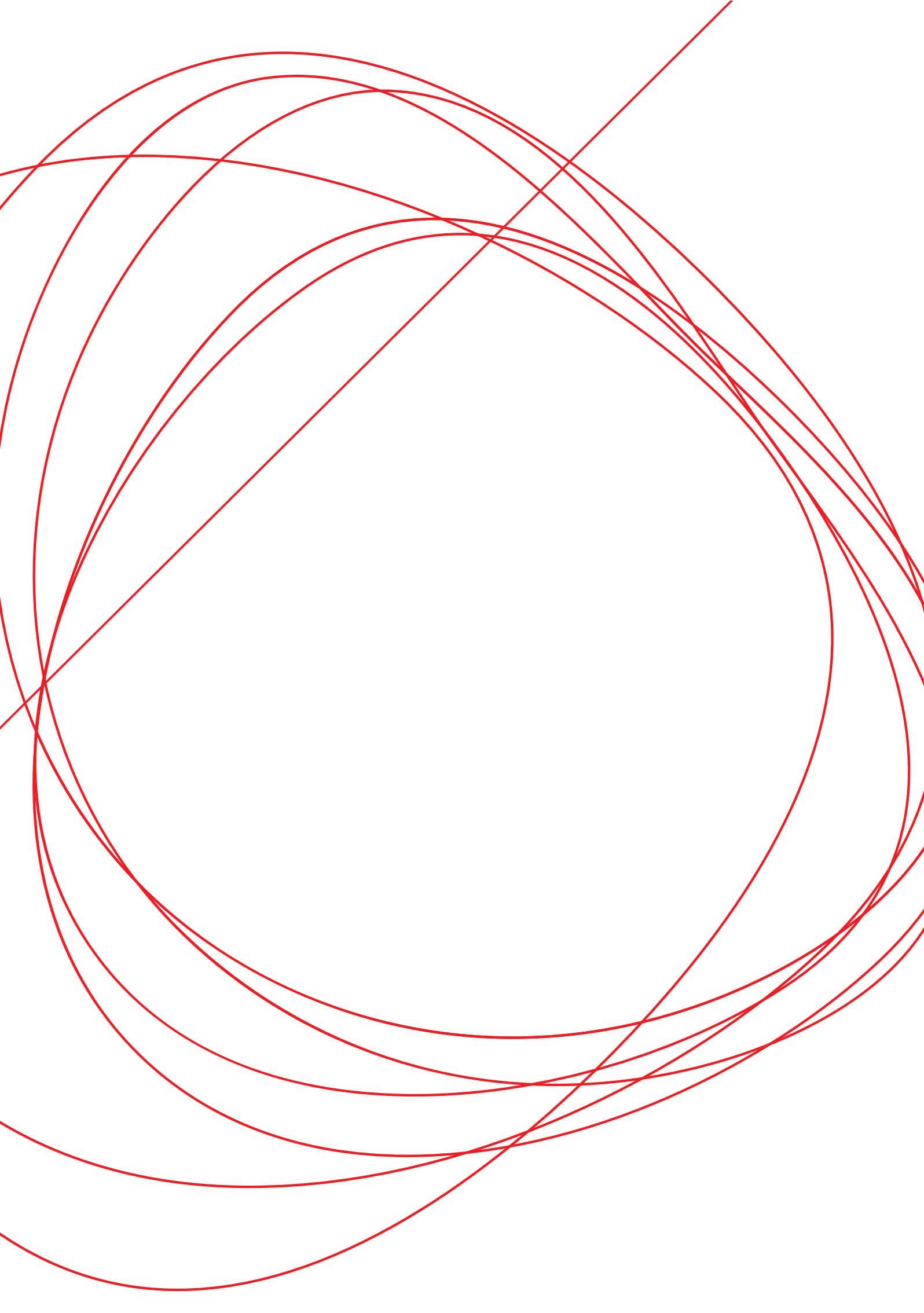
New "inclusive itineraries" guided the design experimentation and patent process of a rotational contact control system [repositionable], developed within the IDEAS Department – "Industrial Design, Ambiente e Storia" (Industrial Design, Environment and History) – in the scope of the "New Technologies and Disabilities" project – "Innovative supporting system for interaction by persons with physical disabilities with design software", a call for applications promoted and co-financed by MIUR – "Ministero Pubblica Istruzione Università e Ricerca" (Ministry of Public University Instruction and Research). Specifically, the project involved a multidisciplinary research unit composed of researchers, designers and experts for the configuration of methodologies and experts in support technologies for instructional support activities for students with physical disabilities. The research unit was subsequently expanded with the insertion of an "examiner" and "verifier" second year student from the Industrial Design and Communications Degree Course at the Seconda Università degli Studi di Napoli affected by a physical disability caused by primary degenerative muscular dystrophy, while experimental physics experts and materials experts participated in the engineering and patenting phase of the project.

The intersection of cultural, experiential and educational diversity in the research unit favored the design of an innovative rotational contact control system [repositionable], the fruit of specific

requirements, interpretations, observations, evaluations, stimuli and experimentation. The system was designed with the objective to satisfy the specific demands and needs of as great a number possible of individuals, starting from the conscious use of analysis of human needs and aspirations to create a true state of wellbeing, where each individual can feel included and constituent as an active part of a community through efficient interaction and fruition.

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# TRACK 3

## HUMANITIES CENTRED INNOVATION

The value of humanistic knowledge as basic research or meta-design (i.e., a research focused on the project) is often considered difficult to apply in the project's general innovation systems. However, it is advisable to promote a profoundly "different" concept of innovation, which encompasses not only technological and organizational, but also cultural and humanistic processes, in companies and industries. This section seeks to explore possible paths and trajectories for a better integration between disciplines throughout the entire project's value chain, through concrete examples of applications, projects and researches in which humanities and social sciences intercept the systems of production (company) and of use (community, users).

Total of selected papers  
on this topic: 14 papers

### **The narrative dimension of design diversity**

—— Valeria M. Iannilli, Antonella Penati and Federica Vacca

### **Designers as humanistic facilitators within complex systems**

—— Rosângela Míriam Lemos Oliveira Mendonça and Luigi Bistagnino

### **A multi-criteria decision-making method applied to the analysis of a product's performance: the case of the spirit ceiling fan and its sust**

—— Juliana Cardoso Braga, Maria Luiza Almeida Cunha de Castro and Marlene Teresinha de Muno Colesanti

### **Human centred design within product lifecycle management**

—— Javier Mauricio Martinez Gomez, Marcelo Amianti and Jenny Rodriguez

### **Usability in arts textbook**

—— Laércio Carlos Ribeiro dos Santos

### **Designing services for sociality and conviviality: the role of a meta-design study in discovering unexpected needs to design an innovative system of services for a closed condo**

—— Francesca Rizzo, Alessandro Deserti and Alberto Seassaro

**Challenges of the interaction between actors on field the environmental complexity**

\_\_\_\_\_ Kátia Andréa Carvalhaes Pêgo, Lia Kruken and Cristina Abijaode Amaral Morado Nascimento

**Bridging innovation between humanities and design: new cognitive and relational processes**

\_\_\_\_\_ Chiara Colombi and Eleonora Lupo

**Rural and urban poverty in developing countries: design and sustainability in Brazil**

\_\_\_\_\_ Luiz Eduardo Cid Guimarães, Leiliam Cruz Dantas, Tamyris Pereira and Jose Wilio Albuquerque

**Understanding the contribution of human-centred design methods to social innovation design projects**

\_\_\_\_\_ Karine Freire

**Can fun be the key to more social design?**

\_\_\_\_\_ Thales Serra Negra Teodoro, Hector Medina Gomes, Miguel Angelo Fonseca de Souza, Adriane Borda and Rosária Ilgenfritz Sperotto

**Design considerations for base of the pyramid (BoP) projects**

\_\_\_\_\_ Leonardo Gomez Castillo

**Territory: a resource for process and product**

\_\_\_\_\_ Ludovico Allasio and Alessandro Balbo

**FotoSun: innovation activator in energy design sector**

\_\_\_\_\_ Giuseppe Vaccaro

**The graphic and editorial design through the advent of digital technology: situation of the editorial design process focused to printed magazines and their digital versions**

\_\_\_\_\_ Marcelo Tesser Grizzo and Renato Valderramas

TRACK 3  
selected papers

## Designers as humanistic facilitators within complex systems

### Rosângela Míriam Lemos Oliveira Mendonça

PhD student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ romiriam@arquicad.com.br

### Luigi Bistagnino

Professor, Politecnico di Torino, Italy  
\_\_\_\_\_ luigi.bistagnino@polito.it

The Design is recognized in many spheres as strategic for the industry. This is demonstrated by the various public actions to promote the involvement of the design.

The Canavese Connexion is one of them. Developed in 2008, it aimed at rediscovering a territory that once has been economically remarkable. The project was not about the creation of a product but "a diversification and requalification experience that might become a necessity and a salvation in case of crises". It was about making the territory talk and show its potentiality exploring designers abilities.

The analysis of interviews, that represent concepts matured for four years, indicated the importance of identifying a common motivation and the potential of the sharing of know-how between industry and designers. This gives clues of how rich is the result of an efficient management of diversity and also of the problems that may arise.

In a context of even greater diversity (i.e. different cultures, experiences, natural and financial resources), the significance of results, innovations, as well as problems would be maximised. These interconnected components or interwoven parts make it a Complex System.

The Systemic Design is an approach to deal with complex systems whose elements do not have a direct cause-effect relationship but compose a network of relationships. Against the global monoculture where products and activities are disconnected from the territory, its guidelines define the understanding of user and its culture as a starting point. The user is considered not as a target to market actions but as an active member of the society. The environmental and cultural protection are the fulcrum of this approach.

This gives choices and empowers users, meaning it would be required from the user, that is proud to belong to his territory and that protects its values, a participative role. Participative projects require, as confirmed in the Canavese Connexion study, an special actor - the facilitator-animator. He should have special abilities in terms of relationship, organization and management. He should adequately explore the knowledge and capacity of the different stakeholders motivating, synthesizing and negotiating the various points of view.

Designers would be required to assume this role, as an expert aware of the relevance of human factors and of the value of the territory. He is trained to have attentive eyes and technical knowledge to deal with the complexity of diversity as the relations between society and industry, between welfare and economic prosperity.

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## A multi-criteria decision-making method applied to the analysis of a product's performance: the case of the spirit ceiling fan and its sust

### **Juliana Cardoso Braga**

MSc, Universidade Federal de Uberlândia, Brazil  
\_\_\_\_\_ cardosodesign@yahoo.com.br

### **Maria Luiza Almeida Cunha de Castro**

Doctor, Universidade Federal de Minas Gerais, Brazil  
\_\_\_\_\_ luizadecastro2000@yahoo.com.br

### **Marlene Teresinha de Muno Colesanti**

Doctor, Universidade Federal de Uberlândia, Brazil  
\_\_\_\_\_ mmuno@ufu.br

The increasing complexity of emerging themes in the world over the past century has gradually demanded the intervention of design into interdisciplinary fields, making it harder to identify and decide which might be the best solution for problems that involve a great amount of different perspectives and actors. Decision is a systemic process and knowledge about the challenges of the context is therefore essential for decision-making processes. In order to incorporate this knowledge into the decision process, Multi-Criteria Decision Making Methods (MCDM) have been used in business environment since the 1950s, creating a set of techniques that aim at investigating a number of alternatives, considering multiple criteria and conflicting objectives.

This paper proposes a case study to demonstrate the use of these techniques for the evaluation of existing products: a decision-making method is used to analyze design characteristics, comparing the attributes of two ceiling fans available in the market in terms of sustainability, one of the most complex and relevant themes nowadays. The method is based on the elaboration of a decision-matrix, departing from the definition of attributes (or criteria) and requirements to achieve them - in the case presented, aiming at sustainability during the entire life cycle of the product. The matrix can be defined for as many alternatives (competing products) as necessary and as many criteria as desired. Each alternative receives a score in relation to each criterion, according to requirements that can be quantitative or qualitative. Each criterion receives a weight, according to its importance for achieving the objective searched. The scores are multiplied by the weights of the decision criteria and the performance values of the alternatives are then obtained.

Besides evaluating given products, this method can also be applied to conception processes, although presenting additional challenges, since instead of dealing with choice among alternatives, it will be then concerned with the discovery and elaboration of alternatives. However, if the actors involved can see the strategy through to the end, they can build a plan step by step and study

eventual adjustments along the process. In design contexts, the set of available actions is not clearly defined in the beginning and this method helps avoid conflict, making a better integration between disciplines and throughout the value chain of the project since it allows for the interaction of various actors in decision-making even when they have different perspectives, value systems or interpretation of events.

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## “Human Centred Design” within Product lifecycle management

### Javier Mauricio Martinez Gomez

Politecnico di Torino, Italy

\_\_\_\_\_ javier.martinezgomez@polito.it

### Marcelo Amianti

Politecnico di Torino, Italy

\_\_\_\_\_ marcelo.amianti@polito.it

### Jenny Rodriguez

Graduate, Universidad Industrial de Santander, Colombia

\_\_\_\_\_ jenny.rodriguez2@correo.uis.edu.co

Human Centred Design (HCD) is a methodological approach which aims at developing products that are easy to use, to understand, and worry-free from a user's viewpoint. HCD activities help to promote innovation that begins with the community and take up the concept of “universal design” to enable the users participation during entire product lifecycle.

New business strategies as Product Lifecycle Management (PLM) are now being implemented in the manufacturing sector in order to design and build products more effectively and with a better quality, due to the efficient administration of the whole technical information related to design and production processes. PLM, through multiple software solutions, incorporates all information about the product, but actually it's only the information from CAD/CAM/CAE software with a database managed from a PDM system (Product Data Management). It is true that it provides better results for companies, such as time reduction of product production, however, further important questions are raised: are these the products that the people need? Are these products developed from a user viewpoint? Are these products sustainable with the community and environment? Are social, economic and environment issues taken in consideration from the communities where product will be produced or used? Usually the answer is 'No'. It's important to build the product right, but it's more important to build the right product.

For this reason, it's crucial to put together benefits of a business strategy, as PLM, with the advantages of a design social strategy, as HCD. This paper show a model to incorporate HCD into PLM based on different methodological approaches, especially those related with 'Design for X'; the model identifies what is done (process areas and activities), when it is done (workflows), who does what (roles - skills) and how it can be done better (methods and tools) from the HCD perspective.

To validate the model, some case studies have been developed for each product lifecycle process area; first, to evaluate the convenience of the model as processes design tool; after, in order to ensure that information from users can be arranged in a PLM system. The model has proven to be a convenient tool to identify user issues and solutions and aims to make ongoing improvements with user participation. It also introduces the idea of HCD into PLM by promoting the design process and offering a way to build products based on the physical and cognitive characteristics of human beings.

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## Usability in arts textbook

**Laércio Carlos Ribeiro dos Santos**

Graduate student, Universidade Estadual Paulista “Júlio de Mesquita Filho”, Brazil

\_\_\_\_\_ laerciocrs@gmail.com

Even with the rise and spread of new media, the book is still the main medium used in formal education in Brazil. However, to attract the interest of the students he has gone through major changes, and these have been influenced by the design. The changes in graphic design have influenced its shape, and therefore his way of interaction with the reader, in this case the student. This paper presents a survey conducted on the use of design in the production of textbooks, in this paper, the teaching of arts in education. For this purpose it was studied the heuristics proposed by Nielsen, they are guidelines that serve as a tool for evaluation of the materials produced and their usability. It also sought to relate to the methods of teaching art to dialogue with the production of these materials. In order to integrate the work of the designer with the proposals for education so that they are actually effective. For this purpose it was used authors as Ana Mae Barbosa and others. It was analyzed the book arts because it serves to develop skills of visual language, for it makes use of various pictorial resources. The book analyzed is created by the Government of Parana used in teaching art in high school of the public schools of the state. It is observed that there is still a distance from the design to allow it to explore all its possibilities. Should be encouraged to read not only the verbal part, but also the visual part, for the students to develop all forms of language present in their education. Still, the material analyzed to seek to attend the current demand for integration between image and text on the contemporary world. It is necessary to consider the designer not only as an art-finisher unglued of the creation of didactic material but as a co-author present in all stages of product development.

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## Designing services for sociality and conviviality: the role of a meta-design study in discovering unexpected needs to design an innovative system of services for a closed condo

### Francesca Rizzo

Professor, Politecnico di Milano, Italy  
 \_\_\_\_\_ francesca.rizzo@polimi.it

### Alessandro Deserti

Professor, Politecnico di Milano, Italy  
 \_\_\_\_\_ alessandro.deserti@polimi.it

### Alberto Seassaro

Professor, Politecnico Di Milano, Italy  
 \_\_\_\_\_ alberto.seassaro@polimi.it

Traditionally, the design of housing solutions has been a field of application for interior design projects that conceived houses mirroring people needs in terms of their social habits: living rooms, play room etc. represented indoor solutions to support people social life at home. Today this phenomenon is changing. The disappearance of the boundaries between working and leisure hours in everyday life, the progressive depletion of the quality of social interactions, the transformation of the traditional family into different forms of aggregations (colleagues that live together, the increasing number of single etc.) are affecting the attitude of people to build spontaneous neighborhood relationships.

Facing this multitude of possibilities this paper aims to present a meta-design study conducted for a service design project to be nested in a “condominio fechado” under construction in Porto Alegre (Brazil), where nearly 10.000 inhabitants are expected . The preliminary study has been conducted by applying a set of tools borrowed from sociology, ethnography, user studies and urban studies: context analysis and focus groups, cases based analysis, analysis of the main theories on cities development.

The paper stresses the strategic role of the preliminary knowledge produced by the meta-design study as the step that reviled an unexpected space for innovation in the typologies of services for the new “condominio fechado”. Future residents of the condo manifested a new need of sociality and conviviality that can be defined as “designed sociality”. Need of solutions that help people to build and maintain helpful and enjoyable relationships with their neighbors that are highly reliable because delivered by a trustable provider. While the architectural project foresees many spaces for services (swimming pools, common kitchens for parties etc.) it doesn't really address the design of services and the conception of a new system of advanced services for the residents based on a new need of sociality. The study showed that it will be highly probable that future residents of the closed condo will constitute a “basic community” likely to be served by designing a basic system of services supporting their initial needs, but also scalable in order to support future needs like sharing, mutual helping, taking care of the common goods, improving people life in terms of conviviality, sociability, and security of the whole neighborhood.

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## Challenges of the interaction between actors on field the environmental complexity

### **Kátia Andréa Carvalhaes Pêgo**

MSc, Universidade do Estado de Minas Gerais , Brazil

\_\_\_\_\_ katiapego@gmail.com

### **Lia Kruken**

PhD, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ lia.krucken@gmail.com

### **Cristina Abijaode Amaral Morado Nascimento**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ cristinaabijaode@gmail.com

Actions involving environmental issues, despite being widely debated, are scarce. We can consider that the difficulty of implementation rests, mainly on its complexity, because has as support the concept of Sustainable Development.

As noted by Pereira (2003),

[...] Environmental issues and sustainable development are in the scope of complex systems, because only through interaction and cooperation of several actors, with common interests and contradictory, is that the best solutions to problems can be proposed and implemented.

So to what actions to take effect, it is necessary to involve concomitant of all actors (consumers, manufacturers and governments), configured as a “link” that of retro-supply.

In this context, designers have a key role, as have the ability to converge the needs and wishes of those actors, redefining what “value” assigned to objects. The the perceived quality of a product or service is the result set of six dimensions of value: utility or functional, emotional, environmental, symbolic and cultural social and economic. In this paper, we highlight strategies for the designer to address the environmental dimension of products.

This article aims to present actions that seek to overcome the challenges of interaction between these actors, in the field of environmental complexity, through experimentation the insertion of environmental parameters in furniture design. This initiative has been undertaken since 2010, on Specialization Course in Design (institution omitted for blind review), directed to the furniture sector.

This paper presents the following structure:

- Identification of characteristics of companies and employers in this sector, which may be related as factors facilitators or inhibitors of innovation;

- Mapping of the university–industry experience already existing in the sector;
- Presentation of the configuration of the content for the Design and Sustainability Project discipline, with a strong practical bias;
- Analysis of the proposed methodology, which includes the monitoring and identification of challenges related to integration of environmental parameters, in practice.

The main results of this study highlight the fact that the industry, though reluctant, starts looking for environmental actions that can become a differentiator for their products in markets more demanding and aware. We emphasize the importance of convergence of knowledge from academia and business to build a systemic view of the industry, that can support the development of joint actions and policies that support the adoption of sustainable practices in production systems and consumption. In this sense, the development of cross-cutting approaches, that incorporate knowledge of various scientific fields, is essential.

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## **Bridging innovation between humanities and design: new cognitive and relational processes**

### **Chiara Colombi**

Assistant Professor, Politecnico di Milano – INDACO Department, Italy  
\_\_\_\_\_ chiara.colombi@polimi.it

### **Eleonora Lupo**

Assistant professor, Politecnico di Milano – INDACO Department, Italy  
\_\_\_\_\_ eleonora.lupo@polimi.it

An advanced vision of Design urges to pose the relationships between Design and Humanities at the center of the discourse on design innovation.

The theoretical debate on transdisciplinarity elaborated a two-ways path of complementary exchange, both on an epistemological and a praxeological level. It set socio-cultural contents for the project and cognitive, analytical models and operational tools, but mainly orienting a metadesign practice. On one hand, in the relations with Humanities, Design codifies interpretative methods and tools; on the other one, the so called “socialization” of Design widens the “Design Thinking” role and application in many design-like aspects of our multifaceted society that are not design specific.

That debate is far from being systematic and collectively acknowledged, even if there are examples of effective collaborations, significant results and emerging approaches in this area. A new vision is needed to overcome the linear and consequential model in which Humanities provide an analytic approach to the following synthetic and creative design action.

Starting from a phenomenological overview on the settled and codified “Humanities oriented” activities currently developed in a design practice, the paper aims, first of all, at picturing the current state of the art in the relation between Humanities and Design to introduce, afterwards, a theoretical reflection on the possibility to codify a new innovation process, that can be framed as “humanities centered innovation”.

This promising bridging can really represent an epistemological turn in defining, legitimating and explaining the potentialities and opportunities of the blurring effect among knowledge fields. It leads to innovative design processes and also to tangible impacts that are able to emphasizing the “relational value” of material production in organizations, communities, industries, and thus shaping a profoundly new concept of humanities led innovation.

In particular, referring to the specific thematic context of the relational nature of artifacts, that have been explored within the seminar cycle by Humanities Design Lab – INDACO dept., the paper will consider the material production context as an emblematic example of foreseeing opportunities for translating the humanities knowledge in applied design innovation.

The objects embedded values, the concept of “cultural memory” that artifacts narrate and the knowledge brokerage role that objects have in design processes, will be recognized and explored as potential design outcomes that can be nurtured intertwining the analytical level with the synthetic one of an innovation concept based on humanistic contents and approaches addressed by the collaboration between Design and Humanities.

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## Rural and urban poverty in developing countries: design and sustainability in Brazil

### Luiz Eduardo Cid Guimarães

PhD, Universidade Federal de Campina Grande, Brazil

\_\_\_\_\_ adocid05@uol.com.br

### Leiliam Cruz Dantas

Doctor, Universidade Federal de Campina Grande, Brazil

\_\_\_\_\_ leiliam@uol.com.br

### Tamyris Pereira

Graduate student, Universidade Federal de Campina Grande, Brazil

\_\_\_\_\_ tamypedroza@gmail.com

### Jose Wilio Albuquerque

Undergraduate student, Universidade Federal de Campina Grande, Brazil

\_\_\_\_\_ wilioalbuquerque@hotmail.com

The article describes examples of interventions, aimed at the low-income population, in the North-eastern and Centre-West regions of Brazil. We understand that there is a role for industrial design in this particular milieu and that design thinking can be applied in projects aimed at marginalized groups in developing countries. Although professional design activity has been practiced for decades and today has been considered an essential part of the innovation process, little of the benefits which could accrue from this activity have been used to benefit the poor in developing countries. Unfortunately the amount of poverty in less industrialized countries has only increased in the past years leaving a considerable part of the low income population without essential products that would improve their quality of life. Despite recent progress in some of these countries, as it is the case of Brazil, large contingents of the population are living in harsh conditions and could benefit from well-designed products, which are low cost and easy to maintain. However, relatively few examples can be found in the design literature that addresses the needs of both rural and urban poor. Thus it is crucial to have concrete examples which policy makers can use as subsidies to design their policies. Thus, three case studies will be presented. The first describes a participatory intervention in a crafts group, the second the development of beehives made from agricultural waste material and the third the design of a nut decorticator to be used in extractivist activity. All cases revealed that there is a need to stimulate the use of design in small and micro production units which operate informally, in both rural and urban areas. There are a number of possibilities for interventions but to address these needs designers have to approach the problem from a different perspective. This includes the recognition of peoples' tacit knowledge and the use of participatory design methods. There is also a need to demystify the design process, approaching it as activities which can minimize these communities' problems. Continued research at this level is thus necessary for strengthening local innovative capability and to insert design in public policies at municipal, state and federal level.

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## Understanding the contribution of human-centred design methods to social innovation design projects

**Karine Freire**

Doctor, Universidade do Vale do Rio dos Sinos, Brazil

\_\_\_\_\_ kmfreire@unisinos.br

This paper will explore the contribution of human-centred design (HCD) approaches to projects that aim to meet social needs. In short, it will discuss a particular project situation, in which the collaboration between design and humanities can produce meaningful results, both to producers and users: those concerning social innovation. The aim of this kind of project is to promote changes in the ways that users obtain what they need to deal with their basic social needs. These basic needs were not attended by both State and Market. We believe that designers need to understand the project context from the point of view of people who live in those conditions to design better solutions. We suggest that the use of HCD approaches could be more relevant to develop service concepts that aim to contribute to social innovation, since not only it is possible to understand the context of use from users perspective, but also, to involve them in the design process. In order to explore the contribution of HCD methods to projects that aim to meet social needs, we will, firstly, describe the different human-centred design approaches used by designers ranging from participatory design, co- design, to experience-based design, applied ethnography, contextual design and empathic design. Secondly we will describe a case study developed for Porto Alegre Food Bank. It is a non-profit organization, which has the need to improve the nutritional education services they provide to more than 300 institutions. Today they mainly rely on Nutritionists to deliver this kind of service, and for this reason, the Food Bank doesn't reach all the institutions at the same time. The main aim of this service design project was to develop a solution that could reach all the institutions they attend without the physical presence of a nutritionist. Finally, it will discuss the contribution of human-centred design to social innovation.

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## Can fun be the key to more social design?

### **Thales Serra Negra Teodoro**

Undergraduate student, Universidade Federal de Pelotas, Brazil  
 \_\_\_\_\_ thalesteo.sn@gmail.com

### **Hector Medina Gomes**

Graduate student, Universidade Federal de Pelotas, Brazil  
 \_\_\_\_\_ hectormedinagomes@gmail.com

### **Miguel Angelo Fonseca de Souza**

MSc, Universidade Federal de Pelotas, Brazil  
 \_\_\_\_\_ mguel.anglo@gmail.com

### **Adriane Borda**

PhD, Universidade Federal de Pelotas, Brazil  
 \_\_\_\_\_ adribord@hotmail.com

### **Rosária Ilgenfritz Sperotto**

Doctor, Universidade Federal de Pelotas, Brazil  
 \_\_\_\_\_ ris1205@gmail.com

The Design movement, intent on adding social aims, has shown a focus on improving human behavior. These projects are being implemented as urban dynamics. Many actions in this area are configured as small installations which resort to digital technologies as: natural interfaces, augmented reality and may also work with simpler elements without more elaborate technologies support. Both cases may contemplate the social media use, enhancing visibility of actions, producing a viral campaign, with a more humanist character, since it promotes interactions between individuals and these, with brands. This marketing strategies and Design combination plus digital technologies has shown that another element is present in these actions: the fun. In this sense, we turn our eyes to what is being termed as The Fun Theory (Volkswagen, 2009) that, in advance, is an alternative to foster a more humanistic commitment within smart mobs (RHEINGOLD, 2002). Considers that fun is the easiest way to change human behavior. Fun concept proves to be broad, so, we're using some definitions which, according to theoretical base studied, we believe are appropriate to purpose. So we believe that fun "isn't necessarily joy, but pleasure who gives in consumption and appreciation." (Gomes, 2004). Flusser (1966), in his text The Fun, says: fun is universe deconstructs, breaking routine boredom. The action of adding ideas contained in these concepts to Design project processes, suggest potentialization of its purpose: achieve the best result with minimal effort (MUNARI, 1998). Therefore, providing a more concrete vision on application of The Fun Theory and Design process implications, we adopted a methodology (exploratory) consists of four stages. We perform a literature review of this theory seeking, understanding provided for enabling us to identify various marketing activities and advertising, three campaigns that communicate with it. The second step,

we study concepts and theories that intertwine with the fun theory for build a “mark” theoretical that allows us to sharpen the perception of these campaigns for analysis, of more specific elements. From these studies, we analyzed and discussed these elements, trying to identify the accommodation, dialogue and partnerships between them and their connections with the processes of design. These actions characterize, third stage. Finally, based on data results, we propose clues to identify possible ways to encourage reflection on a design method within the design, product design maximization, promoting enunciation assemblages (GUATTARI, ROLNIK,1999), triggering fun experience, enhancing the subjective element, generating changes in habits and behavior.

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## Design considerations for Base of the Pyramid (BoP) Projects

**Leonardo Gomez Castillo**

PhD, Universidade Federal de Pernambuco, Brazil

\_\_\_\_\_ leonardo.a.gomez@gmail.com

The objective of this paper is to propose a framework for the development of design projects for the base of the pyramid (BoP). Throughout this research, it is intended to give answer to the following working hypothesis: from design perspective, what does it means to develop products, services and services systems (PSS) for the BoP, with superior quality with respect to sustainable development values? What kind of strategies and design methodologies should be adopted for the design and development of this kind of projects? What is their profile taking into account functional, aesthetics, economic, cultural and environmental performance premises involved? A proper answer to those questions may facilitate guidelines definition for project development. Also, it will be possible to identify a set of proper tools and methods, as well as precise assessment criteria and evaluation systems, in terms of environmental and social impact.

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## Territory: a resource for process and product

### Ludovico Allasio

PhD student, Politecnico di Torino, Italy  
\_\_\_\_\_ ludovico.allasio@polito.it

### Alessandro Balbo

Professor, Politecnico di Torino, Italy  
\_\_\_\_\_ alessandro.balbo@polito.it

Resuming a closer and tangible link between production processes and various territories where they operate is the approach through which we give a proper relevance to humanities creating innovation in the project. Home tools are able to give shape to aspects which belong to material culture of each place. Talking about Home System means of course considering the use of materials and energy consumption in relation to a territory, but also define the qualities that have settled over time and the mutual influence between the characteristics of a place and people who live there.

In order to reach the proposed objective we should cope with the project in different way: involving the subject, its culture and his territory in the process of designing and the manufacturing tools concerning his daily life.

The required conditions for implementing this change are: from the production-point of view a change into the market approach, from the designer point of view the intention to translate the local culture, from the subject point of view the aim is to become active protagonist in the design choices.

If we consider the territory as a “product of historical processes of continuous evolution between human settlement and environment..” we can see the dense interweaving of cultural human activities with the environment.

In this way the territory is a “organism at high-level of complexity” that takes shape of a system that evolves by taking energy from the relationship between culture and nature. Actually preserve this relationship is an opportunity to catch as an effective antidote to the current economic and environmental crisis.

An active involvement brings subjects to awareness of cultural values and makes them informed and critical about choices in consumption.

The efficiency of the bottom-up method is confirmed by experience in the design field by examples such Systemic Approach, Biomimicry and DIY; in computer science by Crowdsourcing and Open Source; in social field by all examples of spontaneous aggregation and sharing such as Cohousing, Solidarity Purchasing Groups and Flash Mob.

If we take into account the food conservation, we see that, before refrigerator, it was a complex and delicate set of actions. Now this process is reduced in few gestures that make you save time but lose how conservation really works. This attitude has consequences that can go very far from us and beyond the fleeting satisfaction that marketing imposes and that leads us to an uncritical consumption.

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## FotoSun: Innovation activator in energy design sector

**Giuseppe Vaccaro**

Università degli Studi di Napoli 'Federico II', Italy

giuseppegvaccaro78@libero.it

Through the design's discipline and the innovation that form the fuel for new business strategies, it's possible to give a robust and flexible connection between human sciences, production systems and using systems activating a network of transverse and multidisciplinary professional competences able to interpret and to answer, rapidly, to the needs of market.

This structure is also supported to the European Union and proposed as a formula to "doing new things" with a "different" approach that "to make a profit" and "to quicken" the renewal of the economic tissue, it must "to spur" on new solutions and "to build up" new future opportunities implementing economic, social and cultural industrial processes and help technological development so that innovation can take root in an active and innovative context, with the awareness that the real success will take from the ability to transform the creative intuition in a structurally defined way that bring to the concrete realization of innovative products.

As from these reflections and considered that the international and community political work to build strategies to development renewable energy field that converge towards grid parity, the share want to document the experience of the FotoSun case-study, Academic Spin Off of energy design. It is the result of years of fruitful collaboration between design researchers of the IDEAS\_ Department of Industrial Designs Environmental and History and firms to work in the renewable energy, communication and easy finance field, FotoSun want to materialize the results of the research, the development, the production and the marketing of photoactive components with have multiple functionality and it want also the building of good practices spread between young researchers starting to the entrepreneurial potential of some innovative industries, very important fields where to direct scientific ,economic and human resources.

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## The graphic and editorial design through the advent of digital technology: situation of the editorial design process focused to printed magazines and their digital versions

**Marcelo Tesser Grizzo**

Universidade do Sagrado Coração, Brazil  
\_\_\_\_\_ mtesser2@gmail.com

**Renato Valderramas**

Graduate student, Universidade do Sagrado Coração, Brazil  
\_\_\_\_\_ rvalderramas@gmail.com

This paper aims to discuss the relationships and counterpoints among the project intended to printed magazines comparing to directed to digital publications, specifically developed for tablet devices.

The research is justified by the wide spread of new reading devices that profoundly alters the contemporary man's dialogue with the processes and products directed to the use of information. Estimates point sale over 450,000 units of the devices per year in Brazil, with propensity of a substantial increase when price's fall and popularization of use of the same and already happens in accelerated growth rate the emergence of a products supplier market for the tool with space demand effective to the professional with training in design.

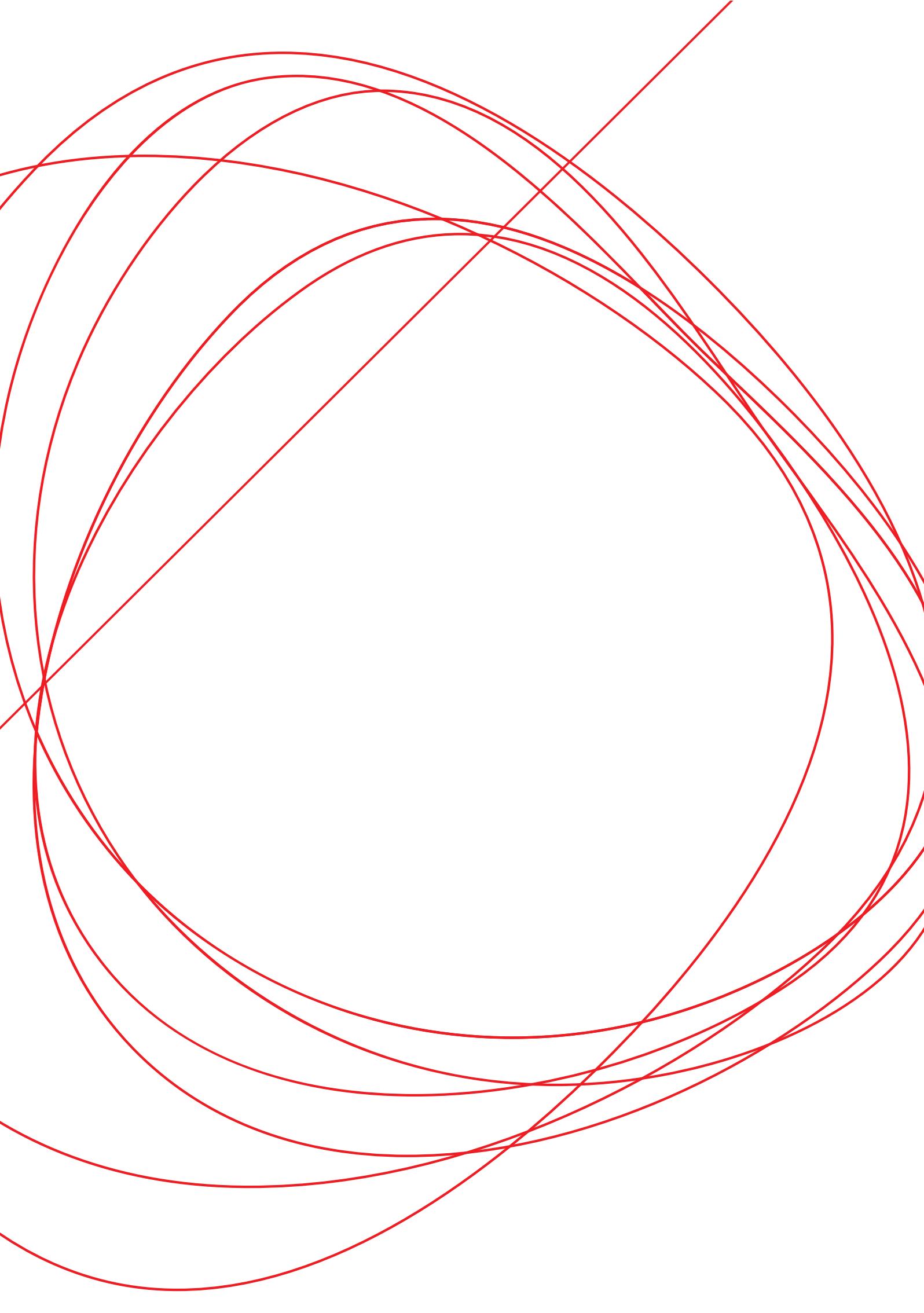
The study has an exploratory qualitative approach developed in two steps. The first one is the bibliographic research and a second moment, a field research with the purpose of information gathering based on semi-structured interviews conducted with art directors of national magazines that use the editorial design process in both print and digital version magazines.

Predictably there was some points of connection between the process project design for printed media and digital media regarding the points as hierarchical structuring of information and the page as well as identified points of dissent in this process, particularly as navigation and interactivity issues.

Due to the nature of the very different media that support the information – page of the magazine and the corpus in the case of print magazine and the digital interface in the case of Tablet –, this work shows the existence of a gap between the processes, although almost simultaneous coexistence, have characteristics quite peculiar since the purpose of distribution to that intended, requiring the coordination of teams dedicated to each of the specific purposes.

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# TRACK 4

## THE DESIGNER HUMANIST AND THE HUMANIST DESIGNER

In the age of hyperspecialization, even the designer's professional figure must have the ability to rethink and enrich itself. The comparison with humanities and social sciences may contribute to define this process in a bidirectional dynamic. This section seeks to question the existence of professional profiles created from the implementation of this relationship in terms of process, also through considerations of a historical-critical nature. What are the specificities? Which are the referential contexts? What are the areas in which to practice this hybridization? What are the outcomes? Diversity is, therefore, understood as a specific variation of the profession that the world of design is called upon to value in a process that finds its own strength in the richness of articulation and in a constant ability to adapt and change.

Total of selected papers  
on this topic: 3 papers

### **Design and theatre: crossed paths**

——— Manuela Celi and Raffaella Trocchianesi

### **Re-activating the city, shared spaces for research on design and humanities**

——— Raffaella Fagnoni and Silvia Pericu

### **Why design? a visual and theoretical manifesto on the role and responsibility of the graphic designer in society**

——— Henrique Eira



TRACK 4  
selected papers

## Design and theatre: crossed paths

### Manuela Celi

Researcher, Politecnico di Milano, Italy  
\_\_\_\_\_ mceli@polimi.it

### Raffaella Trocchianesi

Researcher, Politecnico di Milano, Italy  
\_\_\_\_\_ raffaella.trocchianesi@polimi.it

In the contemporary society we see an hybridization of languages, a spectacularization of the ordinary, a pervasive scenographic approach to the places. Starting from some historical interpretative keys, the paper will explore the relation between the narrative dimension and design. In particular this paper aims to underline the narrative as a element in the design process and the design's function in the staging and theatrical narrative.

The narrative dimension of design includes different levels and forms. The theory of staging, also evolved in to multimodal staging, proposes a model, which arises from the theatrical direction or mise en scene, that is also is valid for the two-dimensional layout as Anceschi suggests. The mise en scene of the product through its packaging, for example, refers to the production of meaning that comes form the theatrical matrix but also to the definition of a space where to lay elements and make them interact with different actors. The metaphor of the theatre is used also as an approach to designing memorable service experiences.

In the central part we propose a case study as a "clasp" between exhibition/staging/show and design narrative through Laura Curino's shows where the made in Italy is staged through the portrait by great masters and where the product became central characters of the narration.

We will discuss also about the narrative as a framework of visit experience with particular attention to staging approach focusing on the performative side of the exhibition places. As Bruckner emphasized technologies, staging, exhibition and narration are strictly connected and all staged spaces are based on the same spatial parameters: the phisically substantive, the atmospherically adjectival, the narratively verbal and the dramatized syntactical. But again Zanzunegui applies the staging model analysis to museums. This one connects places, subplaces and boundaries (as in theater) that influence the visit with stereotyped behaviours. Also he uses the semiotic framework to describe the actions to show and the different profiles of the user. It seems interesting to flank this spatial interpretation with the new grammar of language and the new aesthetics of narration mentioned by Giovagnoli. We consider also the habitat narrativi where the significant system and meta-linguistic practice requires a careful "techno-drama". Through a phenomenological approach we'll describe the overlapping of the two fields proposing some cases study where we can see the relationship between exhibition design and dramatization.

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## Re-activating the city, shared spaces for research on design and humanities

### Raffaella Fagnoni

University of Genoa, Italy  
\_\_\_\_\_ fagnoni@arch.unige.it

### Silvia Pericu

PhD, University of Genoa, Italy  
\_\_\_\_\_ pericu@arch.unige.it

This paper investigates the diversity design/humanities through the role designer plays in the urban context. Public space, not only as physical territory, but as relational and social space, is a potential field of action for the designer humanist, fertile ground where design mediates between “the hard, quantifiable branch of science, and the soft, qualifiable branch of art” (Flusser).

In urban context, knowledge, skills, and intervention models of the designer humanist, aim not at building artefacts, but at interpreting and directing social action through site-specific actions capable of turning settled models and functions.

In urban system, today core of the debate on the issues of smart cities, are involved not only the more technical requirements related to mobility, energy improvement and interaction between citizens and system with the web and the new technologies, but those activities related to knowledge and culture, to imagination and talent as well, with a prominent role held by the creative class.

This means re-activate the city, set connections between best practises for the city, starting from its inhabitants, activating a chain reaction, fed trough a system of actions at different levels, towards urban environment and public space.

The paper analyses several experiences, like the on-going action “Urban Spaces re-Activated”, in cooperation with the Municipality of Genoa and local organisations, in which urban context, almost a living hypertext, represents the scenario where to experiment the relationship between project and human behaviours and where design fulfils its different roles as a mediator of identities.

By analysing processes and outcomes, it's possible to define different professional figures in line with the session's quest.

Designer as humanist inspirer who focuses on human qualities and abilities and integrates the research with social sciences, cognitive psychology, interpreting human/objects relations.

Designer as identity detector who amplifies the relationship between places, populations, spatial

practises, and cultural backgrounds, finding out confluences with anthropology, history and social sciences.

Designer as activist and activator who explores processes and practices to generate a propaedeutic form of dialogue and social participation, raising common knowledge with Social Sciences and Humanities.

Different figures that share a similar approach: the designer plays the lead role in the urban space by humanising a more liveable smart city.

Diversity is conceived as a specific variation that the disciplinary sector is required to add new value in a process that finds its strength in complexity and in its constant ability to adapt and change.

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## Why design? a visual and theoretical manifesto on the role and responsibility of the graphic designer in society

**Henrique Eira**

Universidade de Brasília, Brazil

\_\_\_\_\_ henriqueeira@hotmail.com

Every project is a political act since, in a way or another, rethinks the current world to create a new one. Therefore, an ideology, and idea of a new world, is always transmitted in every design project. In many times, this potentiality of transformation and the responsibility it brings along is forgotten or ignored by graphic designers, both in the moment of their practice as well as in academic discussions.

With a goal to call the graphic designers' attention to these matters and their implications on the designers' role and responsibility in society, the manifesto "Why design?" was idealized.

As a theoretical manifesto, it was inspired in the ideas of Gui Bonsiepe, Victor Papanek, Vilém Flusser, Victor Margolin, Nigel Whiteley, and others. It brought to discussion how design works as politics, according to Bonsiepe, and presented the concept of the "valorized designer" model described in Nigel Whiteley's work, among other ideas.

As a visual manifesto, it happened as an anonymous graphic intervention in the public space of the University of Brasilia, in the form of a series of messages spread in different graphic pieces around the Department of Design of the university. These messages had the goal to start the questioning and the reflection about the design activity, making the public curious and interested. The pieces served as a vehicle to indicate matters that deserve further deepening in research and discussions in the area of graphic design.

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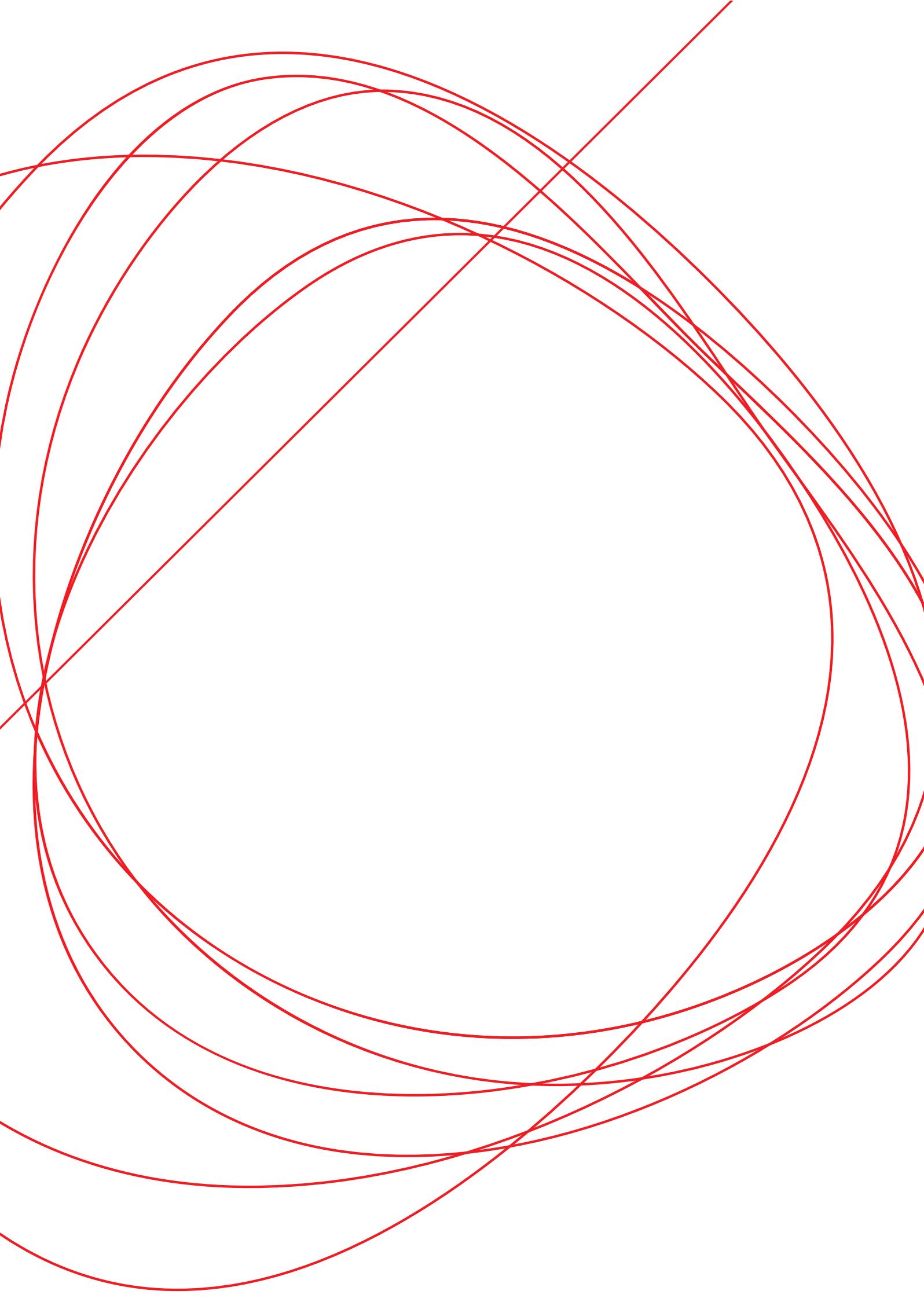
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# TRACK 5

## DESIGN AND HUMANITIES: DIVERSITY AS IDENTITY

This section seeks to put the relationship between design and humanities up for discussion: Do humanities define the value frameworks which describe the socio-cultural contexts that the project uses in an “uncritical” way as sources, or does the project develop questioning processes and tools and outcomes which, in turn, influence such contexts?

Total of selected papers  
on this topic: 11 papers

### **The sense of collection in the Coleção Particular by Cosac Naify**

\_\_\_\_\_ Marc Barreto Bogo

### **Archetypical: sharing values through a design experience**

\_\_\_\_\_ Federica Vacca and Chiara Colombi

### **Towards a significant cultural heritage: the construction and intervention in the design perspective**

\_\_\_\_\_ Gonçalo Gomes

### **Expression and questioning objects**

\_\_\_\_\_ Tiago Kurebayashi and Marcos Braga

### **Introduction of non-traditional plastic materials in craft activity in the town of Tonalá, Jalisco, Mexico: resemantization of handicrafts by design**

\_\_\_\_\_ Alberto Rosa and Francisco Javier González Madariaga

### **The quality of relationships among people is an increasingly important value**

\_\_\_\_\_ Paolo Tamborrini and Erika Vicaretti

### **The design intermediation in the process of increasing value of terroir products**

\_\_\_\_\_ Ágata Morena de Britto and Paulo Belo Reyes

**The temporal dimension of syncretism as a peripheral form of diversity: Jalisco's design identities**

\_\_\_\_\_ Xochitl Arias Gonzalez and Roberto Iñiguez Flores

**Brand design as a cultural mediator: a critical overview of relevant case studies from both Anglo-Saxon and Latin countries**

\_\_\_\_\_ Angela De Marco

**Metaprojeto - in search of a sustainable strategy: moving strategically toward sustainability**

\_\_\_\_\_ Rachel Montenegro and Dijon De Moraes

**Modeling dreams: integrating the craft and design to build a healthy city**

\_\_\_\_\_ Manoel Guedes Alcoforado and Renata Garcia Wanderley

TRACK 5  
selected papers

## The sense of collection in the Coleção Particular by Cosac Naify

**Marc Barreto Bogo**

Graduate student, Pontifícia Universidade Católica de São Paulo, Brazil  
\_\_\_\_\_ marcbbogo@gmail.com

The present investigation relates knowledge of the graphic design area, most specifically book design, to the knowledge of discursive semiotics and plastic semiotics. It is taken as a premise the fact that a book is a syncretic text: besides its verbal language, it uses visual language, the spatial language from its format and its graphic project materiality in order to make sense and constitute a unity. A publishing house that stands out in the Brazilian scenario is Cosac Naify, mostly due to its character of experimenting with the book's form. This publishing house has been successively honored with awards from the books' graphic design area. The object of research of the present investigation is the Coleção Particular ("Particular Collection"), a series of books published by Cosac Naify, defined by the publishing house as: "western literature classics, with brief narratives, in editions in which the graphic project takes part in the reading experience and interferes in the way of experimenting the text". Currently, there are six different titles in the collection: *Primeiro Amor* (Samuel Beckett), *Bartleby, o Escrivão* (Herman Melville), *A Fera na Selva* (Henry James), *Zazie no Metrô* (Raymond Queneau), *Flores* (Mario Bellatin) and *Museu do Romance da Eterna* (Macedonio Fernández). This collection highlights the exploration of the printed book material qualities, playing with the paper choice, printing processes, folding, bindings, illustrations, etc. It is easily noticeable that there is not an explicit repetition pattern in the graphic designs of this collection. Thus, the objective of this research is to investigate which would be the invariant features, the reiterations present in the graphic projects, initially independent of each other, that would permit consider them as parts of a cohesive whole, a collection whose identity is reflected in the publishing house identity itself. The hypothesis is that the sense of collection, of a cohesive encompassing entity, is developed exactly by operations of appropriation of the book's materiality, recalling aspects of each text. Discursive semiotics, developed by A. J. Greimas, and its unfolding into plastic semiotics by J. M. Floch, present themselves as an important analytical tool for contemporary design objects. In this sense, the procedures of elaboration of the graphic designs in this book collection by Cosac Naify constitute a relevant aspect of the design process to be taken as the object of research in the field of semiotics.

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## Archetypical: sharing values through a design experience

### Federica Vacca

Research, Politecnico di Milano, Italy

\_\_\_\_\_ federica.vacca@polimi.it

### Chiara Colombi

Assistant Professor, Politecnico di Milano, Italy

\_\_\_\_\_ chiara.colombi@polimi.it

Since the research “Sistema Design Italia” (1998–2000), the design activity of Politecnico di Milano has been exploring creative territorial systems identifying actors and codifying processes and tools, which are activated in original and peculiar innovation development activities.

Starting from the mapping of the “Made in Italy” phenomenon as a reference, Politecnico di Milano has pursued an internationalization politics aimed to the creation of a collaborative network with culturally diverse contexts in order to experience methodologies and processes and create new interpretative tools and new meanings for the contexts of reference and the related productive systems.

Among the various internationalization projects, Politecnico di Milano is currently collaborating with American University of Science and Technology - Beirut, Lebanon in the fashion field.

In particular, the project refers to the Lebanese fashion industry, whose creativity is already established on an international level but whose designers are educated in foreign schools. Moreover, the Lebanese industrial system does not develop a product-system strategy, which indeed is strongly characteristic for the Italian fashion system.

Looking at Fashion not only as an artistic expression of a subjective creativity, but as a design field with peculiar methodology, it is possible to analyzing and codify the Lebanese cultural contents without following the classical interpretative logics set by the Humanities but rather enabling specific critical filters. If the cultural and social heritage of a specific local context is an intangible wealth that characterizes a community and its individuals, creating a collective identity and imaginary and an historical continuity, it is also true that contemporary languages and tools allow to share knowledge and experiences, revitalizing the context of origin and allowing to reach wider communities of reference and consumption.

For those reasons, the proposed approach looks for a knowledge sharing dimension and a cross-fertilized interpretation and not only for the verification and approval of a model, in order to train a new generation of designers that can play a key role for the development of a Lebanese design culture and, eventually, its worldwide achievement.

The paper will present the process and the results of the workshop “Archetypical”, as the first step of the collaboration between PoliMi and AUST. Based on the cultural dialogue between Milan and Beirut, the workshop has read and interpreted two different fashion tradition and design approach, working on the dress, as the formal archetype par excellence, in order to offer new meanings to the Lebanese inspirations.

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## Towards a significant cultural heritage: the construction and intervention in the design perspective

**Gonçalo Gomes**

Assistant Professor, Universidade de Aveiro , Portugal

\_\_\_\_\_ goncalo@ua.pt

Although little known, the history of Portuguese design is filled with examples of great value artefacts. We believe that this lack of knowledge about our design heritage is a major constraint to the expansion of Portuguese design, both in terms of its internationalization and in it's own our domestic market.

This paper presents an on-going research project that aims to contribute to the systematisation of the Portuguese design inheritance and simultaneously give rise to an instrument of representation, analysis and discussion on it.

We pretend to implement an online platform with some of the most relevant Portuguese artefacts, selected through a methodology that collected the opinions of Portuguese designers and academics, where the public is invited to meet the role that design had in its origin, such as the objective issues needed to be solved, the conditions imposed in his constructive process, the reflection of the designer as the author that proposed the solution, among the others procedural constrains.

On the other hand, the platform will also allow the collaboration of the public both in enhancing these artefacts, either by submitting photographs, videos, sounds or texts that are representative of the user experiences, such as in the reinforcement of the prevailing collection, by suggesting and connecting to other artefacts that they consider to have had an important role in their life's.

We believe that this tool may prove of major importance for designers who focus their design activity on the redrafting and reinterpretation and of Portuguese artefacts. It is also our aim that, by promoting the interaction of society with the legacy of design, and so recognizing the importance he plays in our daily life, we will contribute to the real valorisation of Portuguese design.

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## Expression and questioning objects

### Tiago Kurebayashi

Undergraduate student, Universidade de São Paulo, Brazil  
—— tiago.tk@gmail.com

### Marcos Braga

Doctor, Universidade de São Paulo, Brazil  
—— bragamcb@yahoo.com.br

The current abstract refers to an ongoing research into the subject of emotional design, relating affective values assigned to an object with its durability, consumption behaviors, and the formulation of personal ideals. Analysing categorization systems proposed in the area, it intends to improve them with the conception of an object active in the personal development and the definition of personal goals. To achieve this, it takes support in the concept of Cultivation, from the sociologist Eugene Rochberg-Halton.

The term 'cultivation' is presented as a processual relationship mode in which an individual attributes attention to specific objectives, devoting himself physically and/or mentally to them. The objects are faced as potential channelers of this energy, a "cultivable" physical manifestation, which can recall the essential aims and values of the individual, and direct its efforts to desired goals. When oriented to various objects, cultivation can not only reinforce tendencies, but also discover new objectives; by interacting, the individual discovers new manners of organizing its personal universe and new action possibilities: thence the questioning and expressivity related to objects.

Perceiving in cultivation a key factor to the comprehension of value durability in industrial products, we started a study of user development and affective relations with their objects, selecting the musical instruments field as our research focus. Thus we questioned users about the values attributed to their objects and tried to relate them to the user profile and the several shapes of dedication to the studied object.

We then distinguished the instrumental use of objects applied to various purposes, such as professional activity, enjoyment and self pleasure, the cultivation of social relations with friends or family, and the personal representation of an individual, in terms of past (origins), present (values) and future (intentions). We demonstrate that values the individual is most inclined and wishful to cultivate affect the choices related to consumption and the relationship, whether affective or not, that the user shows with his instruments.

In this way, we try to insert a new information to the discussion of values attributed to an industrial product: it is in the act of cultivating, rather than simply absorbing object qualities, where resides the possibility of questioning and the resultant value emergence.

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## Introduction of non-traditional plastic materials in craft activity in the town of Tonalá, Jalisco, Mexico: resemantization of handicrafts by design

### Alberto Rosa

Doctor, Universidad de Guadalajara, Mexico  
\_\_\_\_\_ alberto.rossa@cuaad.udg.mx

### Francisco Javier González Madariaga

Doctor, Universidad de Guadalajara, Mexico  
\_\_\_\_\_ francisco.madariaga@cuaad.udg.mx

Tonalá, Jalisco is a small town that urban advance of the city of Guadalajara has absorbed integrating to metropolitan area. The main feature of this town is a great tradition of craftsmanship dating from the pre-columbian era. Even before the arrival of the first Spanish explorers to these regions (1530) it was characterized by the production of fine ceramics, which has developed since then with great success, achieving specialize in certain types of ceramic techniques specific to this site.

The ceramic techniques to which we refer are known as: burnished clay (“bruñido” in spanish), “petatillo” mud, flag colored mud and cinnamon clay. In the twentieth century with the introduction of technology began the process of high temperature ceramics (stoneware), a process in which this population has also highlighted to the extent of being known as the “cradle pottery of Mexico.

Tonalá's fame as a producer of clay handicrafts attracted buyers and tourism, so that during the twentieth century the offer was extended to other branches of craft work: The first derivative was blowed glass, technique taken from the neighboring town of San Pedro Tlaquepaque. Over time they added other branches of handicrafts like wrought iron, paper mache, furniture making, brass, etc.

Currently town economy revolves around production and marketing of handicrafts, however, in the search for new craft designs, plastics materials (polymers) have been introduced that have nothing to do with culture and tradition of this population.

The proposal presentation will show the introduction of these materials, the creation of new handicrafts and discuss the relevance of them in the environment of a population with a great cultural legacy that for economic reasons is being left to lose.

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## The quality of relationships among people is an increasingly important value

### Paolo Tamborrini

Research, Politecnico di Torino, Italy  
——— paolo.tamborrini@polito.it

### Erika Vicaretti

——— PhD student, Politecnico di Torino, Italy (erika.vicaretti@polito.it)

The pursuit of the communities' wellness is a main theme whose, shifting from purely economical evaluations, embraces socio-cultural sphere too. In the current social and environmental unease we live, the attention on social sustainability is emerging as a new turning point for design processes innovation. Setting the human issue at the centre of the project is possible to innovate the methodology by the enrichment of new variables that widen its complexity and solve current needs of the society more effectively.

Systemic Design methodology studies this complexity and is starting focusing on humanities, innovating own design process. Indeed, after working mainly on the dynamics of industrial symbiosis starting from the observation of Nature, the Systemic Design approach is now orienting its own attention on the subject and its territory. Focusing on the importance of the relation between subjects and territory it emerges the importance of exchange and collaboration dynamics.

It means that: on one hand only preserving and feeding the humanities issues as potential richness it is possible to aspire to the formation of multicultural relationships nets towards an improved social sustainability; on the other hand the environmental sustainability could be reached only thinking the territory as a place from which we draw resources but we use contemporaneously according with its natural time of autogeneration.

In particular we propose a case study in which the complexity of socio-cultural relationships represents the plusvalue to increase the quality of exchanges among different communities. Our project is based on a network among people involved in urban events, aimed to enrich them by the improvement of their relationships pattern. Considering the relational exchange an exploitable resource to improve also the event itself, we design a better dialogue among subjects with different cultural background but interested in the same (event's) theme.

This relationships network has a double nature. It refers to:

- a virtual network which, by the worldwide web channel (socialnetworking and georeferencing), allowed to connect people that are geographically distant;
- a real network which, starting from the virtual one, materializes itself generating real meeting.

In this way the global diffusion of the social networks becomes an useful tool for the communication need of the communities. It has been demonstrated how a virtuously use of global dynamics into a project could represent respectively a constructive improvement and an augmented link with daily human habits.

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## The design intermediation in the process of increasing value of terroir products

**Ágata Morena de Britto**

Universidade do Vale do Rio dos Sinos - UNISINOS, Brazil

\_\_\_\_\_ agata.britto@gmail.com

**Paulo Belo Reyes**

Doctor, Universidade do Vale do Rio dos Sinos - UNISINOS, Brazil

\_\_\_\_\_ reyes@unisinós.br

When dealing with artisanal gastronomic products its identity is tied to territory in which they are produced. It is necessary to understand that their value is linked directly to the knowledge and recognition of the symbolic values associated with them. This is the case of terroir products. A first definition that we can give about the terroir concept and its production is that they cross the space and time and are supported by the shared knowledge and practice. They are linked to a place and have a history to tell. In others terms, the terroir products are all part of a certain culture.

The main goal of this article is to look for possible alternatives of increasing value to the terroir products associated to their symbolic meaning. The search for increasing value of these products justifies itself, on one hand because of the sustainability in its manufacturing processes, and on the other hand because of the search of maintaining the bounds with local culture and identity through food. This process is stimulated by the period we live in. The phenomena called globalization, generates counter-effects, contrary currents, which induct the development of resistances that pledge for local specificities.

The search for solutions to the problem described in this research is given through design. The design thinking gives another perspective to the way we look at things and at the world, bringing new possibilities. This is due to the understanding of the production, intermediation and consumption processes through the products chain of value. The symbolic values tied to terroir products are the main focus of this research. These values can define the identity of a solution inside the socio-cultural context in the chain of value.

Therefore, a territorial design project must search for the establishment of a new configuration as much in the process as in the product, but also with the clear objective of consolidating the existing values in this territory that defines the product as terroir product. For that, the design vision stimulates the agents for a development of strategic actions with possibilities of signification generated by itself. The new meanings that are generated should not be only economical, but cultural, social, environmental and technological, especially in projects linked with terroir concept. The goal of the using strategic design is creating new values and recognition associated to the products, which will consequently generate increase of the value in the market.

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## The temporal dimension of syncretism as a peripheral form of diversity: Jalisco's design identities

**Xochitl Arias Gonzalez**

Tecnologico de Monterrey, Mexico

\_\_\_\_\_ x.arias@itesm.mx

**Roberto Iñiguez Flores**

MSc, Tecnologico de Monterrey, Mexico

\_\_\_\_\_ riniguez@itesm.mx

The particularities of design, including its methods, models of education, industries and products are often read from regional points of view. In design literature Bonsiepe (1983, 1985, 1989, 1990) called peripheral those regions remained relatively “out” of the history of design and central those whose perspective has monopolized the discourse of the discipline. As the landscape of design(s) becomes global, this unipolar perspective is losing its ability to describe contemporary design.

Syncretism is a concept traditionally used to describe how distinct symbolic systems are “synthetized” by the actors exposed to them, either in Anthropology, Linguistics (Hjelmslev and Uldall, 1953) or Psychology (Piaget 1926). From a deeper perspective syncretism is a process, meaning a temporally framed phenomenon that sooner or later will lead to a new synthesis (Droogers 1989:12-15). Since it describes the means that societies give to themselves in order to deal with diversity, this concept is being used recently to interpret cultural phenomena associated to the process of globalization (Pieterse 2009).

Whether the role that globalization has produced in design has not been clearly analyzed and described, this is especially true for non-central regions such several Latin countries, particularly those defined as emergent economies. These regions present a stressed exposure to cultural diversity linked to globalization. Mexico for instance, constitutes a sort of gateway between the center and the periphery: in the most obvious sense, this is due to its geographical situation. In design education, Mexico has inherited the influence of ex Bauhaus professors and students while. In parallel the country has a strong architecture culture and a huge tradition of Arts and crafts. Lately in the 80's economical strategies oriented to structural adjustments put the country in the map of globalization at the same time that trans-national investments grew. Nowadays, Mexican consumers are open to global goods while design professionals struggle to be acknowledged by their specific skills in creating value for enterprises. In short, industrial culture in Mexico is still trying to develop classical industrial and traditional sectors in the meanwhile that the nation promotes the transfer of global know-how. This syncretic process defines the specificity of the Mexican path into innovation as well as its particular design practices.

Willing to contribute by characterizing these practices, this paper explores this process of Mexican syncretic design. This case presents four levels of peripheralness that we will explore from the perspective of design education, products, enterprise and consumers.

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## Brand design as a cultural mediator: a critical overview of relevant case studies from both Anglo-Saxon and Latin countries

**Angela De Marco**

Politecnico di Milano, Italy

\_\_\_\_\_ angelademarc@gmail.com

Every object of aesthetic fruition can be divided from the informative profile in two main components: a redundant component, tied up to what we already know, what the history and the habits have engraved in our memory, and an innovative component, bearing on new information in terms of function and meaning. As De Fusco remembers in "The pleasure of art", the redundancy represents a factor of essential pleasure for a work-of-art as well as for an industrial product: in the redundancy the individual can recognize important components of his/her individual life and collective history and, at least, of his/her identity as a person and a part of a representative group for a territorial area. For industrial products the brand has a powerful role of mediation among the identity of the user and that of the manufacturing company, leading to processes of recognition, attraction, identification and desire, making us perceive the object as new but familiar, part of our world or necessary completion of it.

The producer's brand is also influenced by the so-called territorial brand: that system of values and symbols collectively associated to its place of origin (region, nation, geographical or mental space). The positive overlap between a company brand and its territorial brand can represent a strong energizer for the enterprise, allowing a deep involvement of its own national market (i.e. Chrysler's brand claiming at "The Time of USA" with the Clint Eastwood's voice) and a great fascination of the foreign markets that appreciate its origin. The ability to represent the spirit of a territory and to bear universal values can offer an enterprise the opportunity of global success (i.e. Apple's Think different approach, created by the genial spirit and the hands of a typical Silicon Valley's garagemaker, has changed, united and inspired souls from all over the globe).

Territorial identity can then represent a valuable framework to be used as an input within a brand design process. At the same time, brand design is able to create new frameworks, by synthesizing complex matters, visualizing and enlivening what is intangible and spreading it through a proper communication: it actively contributes to the formation of the territorial identity. Aim of the present paper is to offer a critical overview of relevant case studies, showing the potential and responsibility of brand as a tool of growth for a territory and its enterprises and a mean of cultural mediation among territories.

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## Metaprojeto - in search of a sustainable strategy: moving strategically toward sustainability

### Rachel Montenegro

MSc, Universidade do Estado de Minas Gerais - UEMG, Brazil  
\_\_\_\_\_ rachelmontenegro@gmail.com

### Dijon De Moraes

PhD, Universidade do Estado de Minas Gerais - UEMG, Brazil  
\_\_\_\_\_ moraesdijon@uol.com.br

Moving towards sustainability requires radical changes not only in our way of life, but in our way of designing.

We know that the solutions of the process towards sustainability are mostly difficult to implement because they deal with a re-education process not only individually but also throughout whole society, we all need to relearn how to perform our daily actions in a different way, breaking several paradigms established in the collective consciousness.

This article aims to show the Meprojeto as a methodology for design in order to, among so many transitions and convergence we live today and the role of the designer in this context to move strategically toward sustainability. This article is the result of research done during the preparation of the dissertation, in which the aim was to understand the strategic role of the designer in the context towards sustainability.

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## Modeling dreams: integrating the craft and design to build a healthy city

### Manoel Guedes Alcoforado

MSc, Universidade Federal de Pernambuco, Brazil  
 \_\_\_\_\_ manoelguedes@hotmail.com

### Renata Garcia Wanderley

MSc, Universidade Federal de Pernambuco, Brazil  
 \_\_\_\_\_ renatagw@hotmail.com

This paper present the results of action-research “modeling dreams” in the city of Barra de Guabiraba-PE. The project objective was to identify, through an ethnographic and iconographic studies, elements representatives of tangible and intangible culture of the city and build a collective project based on the desires and vocation of women artisans in the city. The project was made possible by the structuring of a multidisciplinary team and a network of partners who held regular meetings with the local artisans and leaders. These steps were fundamental to setting a executive timeline of the project and structure of training of the courses aimed to increase the entrepreneurial vision of the artisans and technical knowledge in production. Knowledge those who favored autonomy for the development of new products, to identify the community and fostered the creation of jobs and income for these artisans, helping to build a healthy city.

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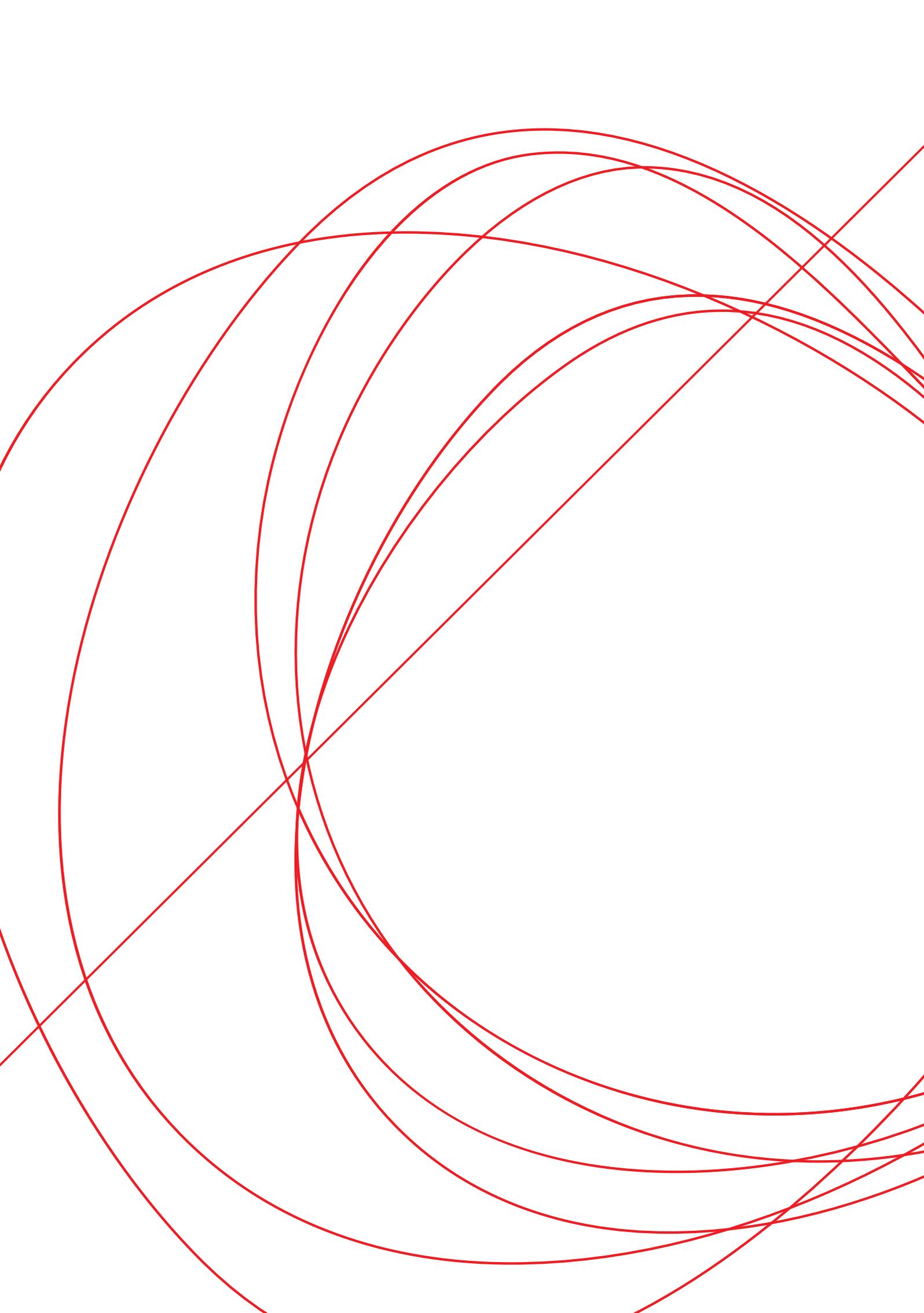
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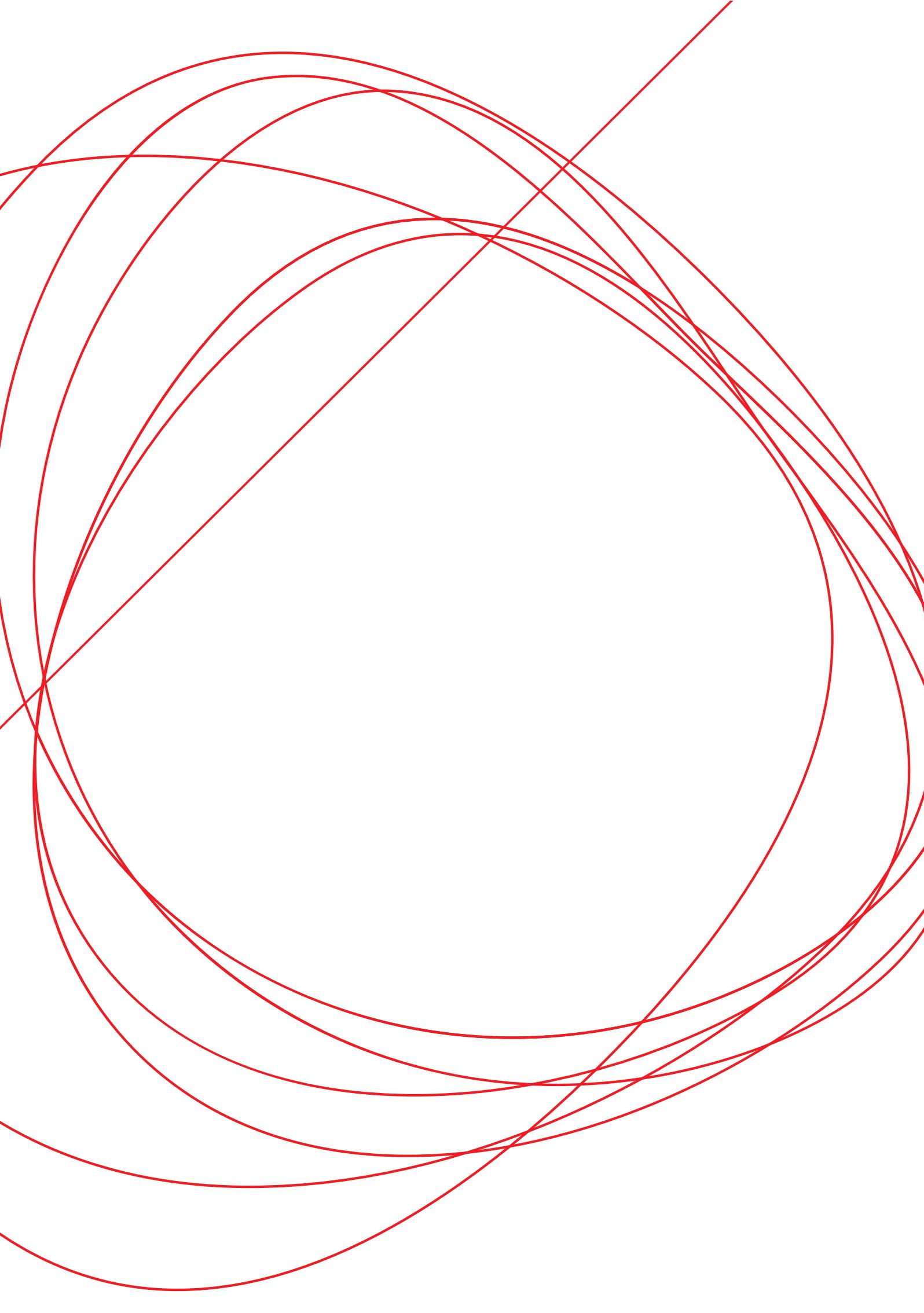
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# TRACK 6

## THE UEMG TALKS ABOUT ITSELF

Since the 2010 edition, the FORUM has opened a space totally dedicated to the experiences and research of the host school, in order to give visibility to the contents and create a beneficial dialogue with the representatives of the international community present at the event.

Total of selected papers  
on this topic: 22 papers

**Fragments of memory: ASI – Arquivo de Som e Imagem: management of collection of documents collected in the Centro de Estudos em Design da Imagem Escola de Design/UEMG**

——— Marcelina das Graças de Almeida

**Geraes creative communities: social design applied to crafts production in Nova Lima**

——— Daniela Menezes Martins, Rita Engler, Nadja Maria Mourão and Thabata Regina de Souza Brito

**Sustainability in crafts production with vegetal waste: practical application of design, culture and identity in Cerrado Mineiro**

——— Nadja Maria Mourão Lia Krucker and Rita Engler

**Design, culture and semiotics: towards a model to analyze semantic-cultural features**

——— Felipe Domingues, Dijon De Moraes and Regina Álvares Dias

**User centred design research methods: an experiment about the perception of products' sustainability**

——— Ivan Santos Lia Krucken and Sebastiana Lana

**Academic extension program: opportunity-based learning projects with social impact: case study methodology in Minas Raízes Program**

——— Maria Flávia Vanucci Moraes and Giselle Hissa Safar

**Design and social innovation: the process of joint construction of the Agroecological Fair of UFRJ**

——— Laura de Souza Cota Carvalho e Roberto Bartholo

**Identity and cultural diversity in Minas Gerais colonial jewelry**

\_\_\_\_\_ Luiz Ozanan and Edson Rezende

**Qualitative analysis of facades and roofs thermal performance using infrared thermography**

\_\_\_\_\_ Solange Andere Pedra, Rosemary Bom Conselho Sales and Teresa Paulino Aguiar

**Embroidery in the context of humanization: “women of the Village”**

\_\_\_\_\_ Adriana Dornas and Marcelina das Graças de Almeida

**ESDI/UERJ and ED/UEMG: the pioneers of design education in Brazil**

\_\_\_\_\_ Regina Álvares Dias, Giselle Hissa Safar e Johelma Pires Avelar

**Importance of tactile perception and interface materials in the design of tactile models: a case study of the National Congress**

\_\_\_\_\_ Artur Mottin, Paulo Miranda de Oliveira and Regina Álvares Dias

**Noise at work chair: unwanted noise pollution and the instrument signal quality in chairs**

\_\_\_\_\_ Eduardo Alves Wilke, Gilberto Almeida Junior, Regina Álvares Dias and Jose Nunes Filho

**Design and urban garbage collection**

\_\_\_\_\_ Rita Engler, Lucas Righi de Almeida and Renata Alves Dias

**The design for housing as reflex of the new consumption society**

\_\_\_\_\_ Anderson Horta and Rita Aparecida C. Ribeiro

**Design and humanities from a “meta-trans-disciplinary” approach**

\_\_\_\_\_ Maristela Mitsuko Ono

**Timber joints: thermography as an aid to design and furniture prototyping**

\_\_\_\_\_ Romeu Rodrigues, Antônio Valadão and Rosemary Bom Conselho Sales

**Thermal viability studies of polymeric composites with curaua fiber (ananas erectifolius) using infrared thermography with focus on ambience confort**

\_\_\_\_\_ Orlando Gama Silva Junior, Rosemary Bom Conselho Sales and Patricia Santiado de Oliveira Patricio

**Innovation in the techniques of decorative finish on Brazilian ornamental seeds: design applied to products with sustainable profile**

\_\_\_\_\_ Lia Paletta and Sebastiana Lana

**The contribution of multicultural Brazilian tradition to a new vision of design**

\_\_\_\_\_ Eduardo Romeiro Filho

**Environmental requirements on design of consumer electronics: contributions to obsolescence management**

—— Igor Goulart Toscano Rios, Rosemary Bom Conselho Sales e Regina Álvares Dias

**Gems and jewelery: management by design applied to the value chain of local productive arrangements**

—— Raquel Canaan and Marcelina das Graças de Almeida



TRACK 6  
selected papers

## **Fragments of memory: ASI – Arquivo de Som e Imagem: management of collection of documents collected in the Centro de Estudos em Design da Imagem Escola de Design/ UEMG**

**Marcelina das Graças de Almeida**

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ marcelinaalmeida@yahoo.com.br

The preservation of memory, as the property of conservation of certain relevant information is one way that we can update and save printing and past information. Therefore it is essential that mechanisms are designed for protection and conservation of material, immaterial and symbolic that constitute the social universe. The right to memory should constitute a natural right and accessible to all. In this sense has been deployed since 2009 ASI (Arquivo de Som e Imagem).

The ASI is the first information center specialized in images (still and moving) and audio UEMG and one of the few in the city of Belo Horizonte, bringing together a rich collection of printed documentation consists of several natures, as well as films, videos, photographs. The principle has been cataloged and described the mass of documents stored on the premises of the “Centro de Estudos em Design da Imagem”, providing suitable arrangement with the acquis and its consequent preservation of properly. It also established a research tool to enable access to these documents to all interested in the same query and extract information for the professional and academic. The ASI is currently regarded as a space for preserving the memory of an educational institution and parallel concern with preserving the history of design and visual arts, especially in what refers to the history of Belo Horizonte.

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## Geraes creative communities: social design applied to crafts production in Nova Lima

### Daniela Menezes Martins

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ danielafalbo@hotmail.com

### Nadja Maria Mourão

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nadja2m@gmail.com

### Rita Engler

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rcengler@uol.com.br

### Thabata Regina de Souza Brito

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ thabatareginasouza@hotmail.com

Creative communities are local initiatives, which use local resources to solve daily problems, promoting social interaction creative methods, in a sustainable way. The so called creative communities are groups of people that choose to act together in order to break with dominant thinking and making models, operating with new and improving proposals. These communities are also responsible for calling local people to participate in productive activities that allows social innovation to happen, improving social, environmental, economical and cultural levels. Design to be effective and fruitful in these social actions must use a systemic approach, showing that social organizations which value creative initiatives are becoming more popular, within the boundaries of sustainable life development search. The Geraes Creative Communities program was developed according to these ideas. The pilot Project was implemented in some Nova Lima communities, in Minas Gerais, Brazil. Actually, it was a demand from the locals who organized themselves and asked for support from Geraes Creative Communities Program, to assist on some specific needs. The goal was to promote craft production using social design participative methodology. Craftsmen took part in multiple activities that aimed to value the territory, its identity and culture, in order to improve the local crafts production. Craftsmen were encouraged to develop products to reach customers aspirations without losing local identity. The group understood the importance of their production to generate income and to preserve regional values and culture. Craftsmen group become a multiplier of this programs ideas. Most of them are now more involved with community issues and producing new crafts based on tradition, human and environmental values.

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## Sustainability in crafts production with vegetal waste: practical application of design, culture and identity in Cerrado Mineiro

### Nadja Maria Mourão

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nadjam2@gmail.com

### Lia Krucken

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lia.krucken@gmail.com

### Rita Engler

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rcengler@uol.com.br

Different People integrate Chapada Gaúcha municipality as: Sertanejos (from the interior), Ribeirinhos (riverside), Chapadeiros (plateau) e Gauchos (from Rio Grande do Sul). This town is located in Urucuia Valley, Minas Gerais State, close to the border with Goiás and Bahia. According to IBAMA (IBAMA/FUNATURA, 2003), Gaucho farmers moved to this area in the 70's thanks to a program to develop the region (PADSA Projeto de Assentamento Dirigido a Serra das Araras). This movement brought with them culture and habits from gaucho people which were incorporated into local identity. We observe changes in terms of a shared culture, a real and unique collective, hidden under many other creatures more superficial and artificially imposed, that people with same ancestry and history share (HALL, 1996, p. 68). Among the paths, we can find the taste for "chimarrão", "pequis" and "buritis" at the same time. Regional communities produce crafts from Cerrado's plants waste respecting multiple origins habits. Design, culture and identity workshops were developed in Ribeirão do Areia, Buraquinhos and Serra das Araras with the goal of contributing and reinforcing local's identity. These workshops used as raw material supplies and waste from Buritis and other plants. Work methodology was created respecting specificities and differences of members of each community, which were considered actors and authors of the procedure. Activities were planned together, looking for redeem and add value to local technology and identity. In Ribeirão do Areia, the interest in conveying the signs that represent the Folia de Reis was registered. This event promotes, at the beginning of each year, members of local families visit. In Buraquinhos community, the clothing of buritis' fiber mats is transmitted across generations. In Serra das Araras, the oldest of local communities, a major event is held on St. Anthony's day. Several community marriages are performed in the local church. During the event, embroidery and handicrafts made with plant residues are sold, representing the symbols of religious holidays. After evaluation, Design Workshops, opened new possibilities for crafts, linked to cultural values, identity and popular domain. The project encouraged the participation of all artisans through shared work, and also put in evidence their importance within the system to which they belong. Use of plant residues and creativity enable new ways for the local economy.

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## Design, culture and semiotics: towards a model to analyze semantic-cultural features

### Felipe Domingues

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ dominguesfelipe@yahoo.ca

### Dijon De Moraes

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ Moraesdijon@uol.com.br

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ regina.alvares@gmail.com

Inherent to several aspects of peoples' lives, the design and its manifestation through objects support individuals to define themselves as social groups, communicate with each other and experience reality. This means that individuals' relationships with objects correspond not only to economic and material phenomena, but also and most importantly to complex social phenomena featuring intangible issues. Nevertheless, from a scientific and formal point of view, little is known about the possibilities of associating physical and symbolic cultural features and applying this knowledge to product development and global market-oriented adaptation processes. Building on ethnographic research techniques (i.e. participant and non-participant observation, photographic records, and in-depth interviews) and using the computer software Pajek as a supporting tool for information interpretation, this pilot research aims to empirically investigate methodological adaptation avenues and develop a model for semantic-cultural data analyses. The results point to three complementary perspectives for the future investigation. First, assessing the adequacy of sampling, data collection and data analysis techniques will ultimately refine the methodological procedures to be applied to the final field research. Second, the investigation proved the possibility of introducing a model to analyze semantic-cultural features. Third, this preliminary research proved the reliability of adopting ethnographic techniques to develop processes aiming to design products for the international market. This last result is important, as the introduction of such a model calls for further studies, both those focusing on themes associated to symbolic cultural features and those concerned with the relationships between users and global products.

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## User centred design research methods: an experiment about the perception of products' sustainability

### Ivan Santos

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ santos.ivan@gmail.com

### Lia Krucken

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lia.krucken@gmail.com

### Sebastiana Lana

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ sebastiana.lana@gmail.com

The theme of this work is the collection of information for development of sustainable products with a focus on user. With the intention to deepen the analysis on the user's perception, and to establish a direct relationship between the research methods of perception associated with the design process, this paper aims to collect modes of expression used by users to describe the sustainability of products. For this purpose a qualitative experiment was designed, which included research tools as a questionnaire in a virtual platform. Including 12 designers and 18 users, totaling 30 participants. They were asked to report what they meant by sustainability, stating that they considered a sustainable product and define the characteristics conferring this profile to the product. The results show the insecurity of the participants in relation to the subject, and also the advantage of a broad common idea of sustainability as strictly linked to the environment and damage caused by the production of mass consumer goods. The strategies related to reuse and recycling of materials for the manufacture of new objects were also presented in the study that showed a certain diversity of products considered sustainable, cited by participants. The work shows that the experiment used is capable of collecting data that allow us to infer a general impression of the participants of the concept of sustainability in relation to products of daily life. The experiment is part of a comprehensive method of understanding the perception of sustainability in products by users, and defines the basic parameters for the application of other studies of user interaction.

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## Academic extension program: opportunity-based learning projects with social impact: case study methodology in Minas Raízes Program

**Maria Flávia Vanucci Moraes**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mfvanucci@gmail.com

**Giselle Hissa Safar**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ giselle.safar@gmail.com

One of the biggest challenges has been placed at universities now a days is the academic training focused not only for technical and scientific excellence, but also for the training of those citizens, conscious, willing to reflect on their personal and professional activities aimed at building values an economy capable of reducing socioeconomic inequalities and enable sustainable development. University extension has been an important way to overcome this challenge and has acquired greater importance in the academic setting precisely because it allows the students to develop their professional skills while generating as a result, positive social impacts. There is a growing demand for support projects for economic solidarity, and in design, many projects of improvement Brazilian handcraft made with the support of the PAB (Brazilian Handicraft Program), through institutions like the SEBRAE (Training and Support to Entrepreneur) - the CENTROCAPE (Center for training and support craft) that are maturing and gaining gradually, major improvements through the approach to the design. This scenario becomes favorable for the academy to make a critical reflection on this mode of cooperation design / craft, its limited scope, benefits, concerns, and preparing students to work in this segment with responsibility and commitment to the perpetuation of cultural traditions as related the craft sector. This work aims to present the experience educational and pedagogical program used in Minas Raízes - cultura, produção artesanal e design social, and dialogical way of interacting with the external community. It is a cooperation program in craft production that aims at working together to craft questions of the universe project design that can reverse the improvement of their product. It is based on the valuation of the territory and the individual, the tangible and intangible culture site, taking into consideration the cultural, and individual production of each craftsman. Besides the direct benefit to the community generated productive, there is also a positive impact for the team of students and teachers who go beyond the learning with the artisan about his culture, his technique and raw materials. By sharing with the community worked in university affairs, reinforces the learning of academic content, experiences and overcomes difficulties, fits to different realities, rescues values, and share life experiences can influence their attitudes in the professional and personal.

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## Design and social innovation: the process of joint construction of the Agroecological Fair of UFRJ

**Laura de Souza Cota Carvalho**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ laurascota@gmail.com

**Roberto Bartholo**

Doctor, Universidade Federal do Rio de Janeiro, Brazil

\_\_\_\_\_ bartholo@pep.ufrj.br

Beyond the design of technologically innovative products, design as a process of development, it is also important in social innovation projects. This paper presents reflection on this theme from the research developed together with the various actors in the Agroecological Fair of UFRJ (Federal University of Rio de Janeiro) in order to make it effective as a “meeting of tastes and knowledge”. One of the biggest challenges of the consolidation process of the Fair was its dialogical construction, given the diversity of disciplines and knowledge of those involved in the process. That is, the social innovation was the challenge of the project. According to Flusser (2009, p.72), “the conversation produces knowledge” but “the problem of knowledge is [...] a problem of translation”, the adequacy of language. Being open to dialogue is an exercise in recognizing the otherness and accept the vulnerability of the other. And “[...] speak of otherness is talk of difference, and of the recognition of different and of the borders” (LOSCHIAVO, 2008, p.65). Given this difficulty, purpose of this study was to understand how the design could help to identify possible ways to the university contribute to enable the construction of the Fair as a space of flavor (business) and knowledge (learning). To this end, was used the proposed of solidarity of Rorty. For the author, solidarity is “the ability to think people very different from ourselves as included in the range of ‘we’” (RORTY, 2007, p.316). The work resulted in a set of actions supported by design methodology. Among the actions, there is the proposition of the Fair as a subject of study in disciplines of undergraduate courses in several areas as Production Engineering and Computing and Information Engineering. The learning process of undergraduate students with the Fair proved to be important and these were the moments in that the dialogue of knowledge was expressed in a more remarkable. This shows that the Fair could involve many more people than just their farmers, organizers and consumers and integrate into their scope other activities than those strictly commercial nature.

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## Identity and cultural diversity in Minas Gerais colonial jewelry

### Luiz Ozanan

PhD student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lozanan@gmail.com

### Edson Rezende

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ edson.carpintero@gmail.com

With the discovery of gold in Minas Gerais in the late seventeenth century, and precious stones in the following century, Brazil and Portugal economy underwent a boost. These events triggered the heavy traffic of people in the Minas Gerais territory. They were miners, adventurers, merchants, in short several cultural players who continually influenced each other and experienced ways of mobility hitherto unknown in the colony.

The society created with the natural wealth and the internal market embellished itself the most varied ways. They had jewelry that served not only to denote social status, but also as a form of protection. Several pieces came from Lisbon, Porto and Coimbra, while others were produced by goldsmiths working in Minas Gerais since the eighteenth century.

Gold was the favored metal for the production of jewelry. Colored gemstones were part of the goods owned by several social groups. Other materials were incorporated by craftsmen, goldsmiths and jewelers, including those representing the wonders of Africa or the Far East, such as jet, amber, pearls and coral. They were embedded in pieces that circulated and were appropriated both in Brazil and in the East.

The set entered into inventories and wills will allow us a glimpse on the traffic of cultures among continents of America, Africa, Europe and Asia. By reading the researched documents one can reconstruct personal stories, the actions of men and women who carried body ornaments, and also analyze the social life of these ornaments.

This is the text of a study that aims at investigating the existence of different jewelry designs for the same society, thus testifying to the cultural diversity in Minas Gerais through body ornaments.

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## Qualitative analysis of facades and roofs thermal performance using infrared thermography

### Solange Andere Pedra

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ solanderepedra@gmail.com

### Rosemary Bom Conselho Sales

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rosebcs@gmail.com

### Teresa Paulino Aguilár

Doctor, Universidade Federal de Minas Gerais, Brazil  
\_\_\_\_\_ teresa@ufmg.br

The evaluation of the thermal performance of a building is a necessity that includes architectural responses in relation to thermal exchanges between the built environment and the external environment. This performance directly affects the thermal comfort of the building and can interfere with the temperature of the surroundings. In Brazil, the current standardization favors indoor comfort, and makes no reference to the possibilities of the building contributing to the formation of a heat island around itself. Heat islands impact on the environment since they rise city temperatures, changing the local microclimate and consequently affecting the thermal comfort of the building. One of the factors causing the heat island effect is the infrared radiation emitted by materials, and this radiation is directly related to the surface temperature of the elements that make up the built environment. In this paper, infrared thermography was used to evaluate the thermal performance of the elements of facades and roofs, and the possible contributions of this performance in the comfort of the building and the formation of heat islands.

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## Embroidery in the context of humanization: “women of the Village”

### Adriana Dornas

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ [adrianadornasmoura@gmail.com](mailto:adrianadornasmoura@gmail.com)

### Marcelina das Graças de Almeida

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ [marcelinaalmeida@yahoo.com.br](mailto:marcelinaalmeida@yahoo.com.br)

This communication proposes a reflection on the design to discuss how it incorporates the concepts of humanization in the social world. It aims to reflect on their ability to respond by taking as its starting point a case study. This is a group of embroiderers in Belo Horizonte, which could incorporate into their work human concepts, ethical and environmental appropriate for the project, providing their products a unique meaning. This group is called ‘Women of the Village’, which develops various artifacts, such as handbags, necklaces, skirts, among others. It works with technical craft, especially embroidery. The embroidery represents for the group, besides work, financial independence and other values embodied by the members and exalted, such as socialization, life experience and living in community, exchanging ideas, considering the importance of teaching the citizen to make of the community work a profession, and the ability to put it more critical to the world. From the hands of ‘Women of the village’ come the embroideries that determine the different style and custom parts; following this proposal, workers embody and promote the appreciation of craft techniques as an alternative for generating employment and income. It is a way to face the challenges of the contemporary world. In this sense, the action promoted by the group ‘Women of the Village’, although diffuse, considers the focus to social innovation and the designer proposes to leave its traditional role, to assume the role of facilitator and generator of ideas, a role that does not replace the traditional, but it presents opportunities for new areas of activities. It points to the urgency of adopting ethics between the designers, in which the commitment to humanity is a goal to be achieved. The need to protect the planet while promoting quality of life for all is a new concept to be incorporated into the design. The questions of projects should consider many possibilities: material, technological, cultural, economic, social and human. One can understand the learning process is constant and can provide the foundation for creative initiatives, proposing numerous solutions and creating a scenario of multi society, deducing that it becomes a new relationship between the local place and the global one. The focus for this position is primarily a human being. With this in mind, it is possible to see people as being transformative and liberating forces of the world today. So, the design has the key to turn cold and insensitive uniformity of globalization into the particular heat of social innovation, with ethics based on compassion, justice and a sense of humanity based on tolerance and compromise. The design will keep the potential to create no new objects, but a social responsibility again. In summary, this is the proposal that daily underlies practice experienced by the group “Women of the village”.

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## ESDI/UERJ and ED/UEMG: the pioneers of design education in Brazil

### **Regina Álvares Dias**

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ regina.alvares@gmail.com

### **Giselle Hissa Safar**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ giselle.safar@gmail.com

### **Johelma Pires Avelar**

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ johpiresdesign@gmail.com

Over the past twenty years, the importance of design as a factor of economic development was gradually consolidated, which increased the demand for professional training that created an exponential development in the number of design courses in the country. Discussing the genesis of the first Brazilian initiatives in the field of consumption of the design, therefore, it is appropriate and necessary in order to understand the later developments and provide grants for studies to contribute for its improvements. The education of design in Brazil began in mid-twentieth century, in consonance with the policy of modernization, created by Kubitschek and the cultural effervescence, generated by the maturation of the modernist artistic conceptions. Apart from the initiatives historically known of the Faculty of Architecture and Urbanism - FAU and the Institute of Contemporary Art - IAC, two institutions emerge as pioneers: the School of Industrial Design (ESDI), considered the first institution to offer a graduation course in design in Brazil and FUMA, the current School of Design UEMG, both the beginning of the 60s. This paper presents a historical survey of the creation of these two pioneering institutions focusing on aspects of the context of their regions, who encouraged or led to its creation. The research and analysis work were directed to issues which allowed to identify and confront the different genesis of the first two design schools in Brazil, the School of Design at the University of Minas Gerais (former FUMA - Art Foundation of Minas Gerais) and ESDI - School of Industrial Design, now part of the Federal University of Rio de Janeiro. It was not just about the cutting edge and pioneering vision of those who were its founders and members, but especially the points of difference and similarity of their didactic and pedagogical proposals, considering the historical contexts in which they were gestated. The methodology adopted in this project was not restricted to the isolated analysis of the phenomenon of creation of the institutions surveyed. Specific information about the creation story of the two institutions were confronted with many and varied aspects of society at that time so it could have the real dimension of a pioneer. The present study, therefore, contribute to the understanding of a particular historical moment and especially expansion of the design education memory in Brazil.

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## Importance of tactile perception and interface materials in the design of tactile models: a case study of the National Congress

### Artur Mottin

M.Sc., Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mottindesign@gmail.com

### Paulo Miranda de Oliveira

PhD student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ paulo.miranda@polito.it

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ regina.alvares@gmail.com

The present study is related to the visually impaired, especially as the tactile perception may facilitate communication with a means of improving the conditions of accessibility, especially in public places. Several authors dedicated to studies with blind and visually impaired form the theoretical basis that supports the tactile perception. It is important for this study, the main strategic adopted to enhance the “tactile reading” of the models.

A case study is presented to demonstrate how to design a model is important to involve users in the choice of materials and making decisions to make communication more efficient and enjoyable to the users.

The National Congress building, opened in Brasilia in 1960, is today one of the references in world architecture and a symbol of citizenship in the country. It is one of the postcards of the city, along with the entire architectural complex designed by Oscar Niemeyer. Because of this the building is visited daily by many people, including those who present some type of disability. The access for people with special needs is granted by means and physical relationships, however, the three-dimensional understanding for the visually impaired is limited.

A blind person would need to access the premises of the building for several times before being able to do a three-dimensional image of its architecture, which limits their perception and also their access to most of the dependencies of the building. In order to improve the understanding, knowledge, respect and right of access for people with visual impairment in the condition to establish its accessibility, with the ability of three-dimensional recognition by touch, we developed a tactile model so those visually impaired could recognize and generate a three-dimensional mental space.

By means of the technology of rapid prototyping, stereolithography (SLA) with the use of computer-aided design and application of various materials it was possible to develop a tactile model with proper playback of architectural details, allowing the spatial understanding of blind.

The project was developed and implemented by UEMG on the demand of the Department for Accessibility and Sustainable Project, Center for Architecture, Project Coordination - DETEC/Brasília-DF.

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## Noise at work chair: unwanted noise pollution and the instrument signal quality in chairs

### Eduardo Alves Wilke

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ duwilke@gmail.com

### Gilberto Almeida Junior

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ gajunior@gmail.com

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ regina.alvares@gmail.com

### Jose Nunes Filho

Graduate, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ josenunesf@terra.com.br

The present study is related to the visually impaired, especially as the tactile perception in professional environments, detecting the nature and sources of noise at work chairs. The noise present in cycles movements measured by means of appropriate equipment in the laboratory, and evaluated with the aid of software to develop diagnosis, causes and consequences. As we highlight the character relevant methodological research of noises, intermittently, will cause yield losses of tasks performed or damage the user for breach and / or premature wear of parts.

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## Design and urban garbage collection

### Rita Engler

PhD, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ rcengler@uol.com.br

### Lucas Righi de Almeida

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ lucasrighidealmeida@gmail.com

### Renata Alves Dias

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ renata33.dp@gmail.com

In Brazil, garbage collection, which is the first step of recycling process, is made by scavengers who usually go from house to house collecting recyclable waste. This group of people organize themselves in informal associations, or sometimes works alone. This informality has some nasty consequences, and most of the time they work under poor conditions, but that's, for most of them, their only income source. Their tools lack of safety, have no ergonomics concerns, the places where they sort the waste and store them before selling are inappropriate, unhealthy, dirty, poor ventilation, smelly and so on. They work in open air, while collecting the waste they are under weather conditions, that can be very dry and warm, or extremely wet.

Our project takes place in a small town, Nova Lima – Brazil, where there is an association, with 23 scavengers who collect part of the recyclable waste. We have been following their work in order to understand better how it is done to enable us to create some new tools and procedures to facilitate their tasks. We also talked to the population to find out ways to improve their commitment to this process.

After analyzing the data collected and having experienced scavengers' routine we realized that just creating a new line of products to make their tasks easier, would not be a solution, but kind of softer it. Of course better working conditions are important, but the whole process had to change!

On this paper we are presenting a proposal conceived with the participation of all actors (scavengers, inhabitants, politicians and our group) to adopt new procedures on garbage collection process, where the roles of each society group is redefined and stronger. A new line of products was then designed to enable this new plan to start.

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## The design for housing as reflex of the new consumption society

### Anderson Horta

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ andersonhorta@gmail.com

### Rita Aparecida C. Ribeiro

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ ribeiroed@gmail.com

The present paper proposes an approach to social changes that occur from the Industrial Revolution until the times of hypermodernity, in accordance with Lipovetsky, from the analysis of changes in the perception of home environment from the design perspective. Setting this environment as an example of these changes, taking advantage of the relations between people and household objects and how they changed over time and the design roles in this process. We also observed how the relations with the house itself undergoes through remarkable changes, both in relation to the world of work and family.

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## Design and humanities from a “meta-trans-disciplinary” approach

**Maristela Mitsuko Ono**

Doctor, Universidade Tecnológica Federal do Paraná, Brazil

\_\_\_\_\_ maristelaono@gmail.com

This paper aims at giving a contribution to design and humanities, concerning theoretical and applied research, from a ‘meta-trans-disciplinary’ approach. ‘Trans-disciplinarity’ goes beyond the disciplines and interrelationships between specific disciplines (Nicolescu, 1999), thus differing from multi-disciplinarity – which involves more than one discipline, maintaining specific theories and methodologies, neither exploring articulations nor integrating results –, and inter-disciplinarity – which involves a group of disciplines, adopting a common theoretical and methodological approach, and promoting the integration of results, but preserving specific goals of each discipline. Trans-disciplinary approaches weave systemic relationships with permeable and dynamic frontiers between disciplinary fields, connecting knowledge and experiences of life. Moreover, this concept is intimately related to the perspective of complexity (Morin, 2003; 2011) in human social systems, as well as in design, both of them demanding a ‘meta’ level approach as a way of integrating complexity and trans-disciplinarity within the contexts of multiple systems, uncertainty and cultural diversity, which is here understood as a characteristic of everyone, based on an interpretive approach of culture (Geertz, 1989). “The meta-trans-disciplinary perspective demands the creation and construction knowledge from a dialogical exposition of action, experience and theory, which relink, intermingle, and mutually help in interrogating for recreating and reconstructing. Moreover, from this perspective we make emerge a production of sense, whenever we can understand and mix a situation, a problem, from various angles. The implication of a complex being in this cognitive act is always present if we intend to obtain a creative work that generates meaning of life” (Jurado, 2010, p. 4-5). In this sense, it is emphasized the relevance of cooperative and integrative research and development, which imply sharing methods and results between multiple fields in theoretical and applied research, integrating science, philosophy and spiritual learning process not from a dialectic approach, but from an ‘exlectic’ approach, which is integrative in the co-creation of systems and co-construction of knowledge.

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## Timber joints: thermography as an aid to design and furniture prototyping

### Romeu Rodrigues

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ romeuemor@gmail.com

### Antônio Valadão

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ antonio.cardoso@cetec.br

### Rosemary Bom Conselho Sales

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ rosebcs@gmail.com

Woodwork joinery has allowed designers to create many kinds of wooden splices that contribute aesthetically to the object as well as providing structural stability. These are important aspects because both structural and aesthetic decisions are all made at the same moment at the project phase. The choice of the best wood type for each part of the splice is also a challenge to those professionals. Timber is the number one renewable material to the furniture industry due to its mechanical and durability properties and its highly praised aesthetical appearance. Non-destructive techniques such as thermography can assist in the search of the best solutions envisioned by the furniture designers since this kind of non-destructive technique allows the utilization of the same timber prototype during all the prototyping stage, allowing modifications and interferences without damaging its original characteristics. That does not happen in destructive techniques such as mechanical tests. Going further in this line of thought, the infrared thermography could assist designers in the structural stability and flaw evaluation (in splices) of wooden products. In this work we have investigated the use of thermography for a qualitative analysis of the structural stability of wood splices made from different kinds of timber logs (soft and hardwoods) under static and dynamic stresses. Initial results show that thermography is a technique that could potentially contribute to rationalize, reduce and help the furniture design specially at prototyping stages.

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## Thermal viability studies of polymeric composites with curaua fiber (*Ananas erectifolius*) using infrared thermography with focus on ambience confort

### Orlando Gama Silva Junior

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ gama.orlando@gmail.com

### Rosemary Bom Conselho Sales

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rosebcs@gmail.com

### Patricia Santiago de Oliveira Patricio

Doctor, Centro Federal de Educação Tecnológica de Minas Gerais, Brazil  
\_\_\_\_\_ patriciapatricio@des.cefetmg.br

Development of materials from renewable sources, such as natural fibers is a current reality. In the world today 30 million tons of natural fibers are produced, and Brazil is responsible for a large part of this production. Due to the variety of specimens existing in Brazil, the interest in scientific and technological research has increased with both traditional fibers such as sisal and jute, as with other types as curauá (*Ananas erectifolius*). Curauá is from the family of the Bromeliaceas that produces a small fruit and their leaves present fibers with high mechanical strength, especially when mixed with polymers. Researches show that the advantages of using these fibers reinforcing composites are low cost, low density, good toughness, good thermal proprieties and reduced use of energy for bouth treatment and processing. Nowadays Materials Engineering seeks to develop new products from renewable sources with less environmental impact. The objective of this research is to confirm the thermal efficiency of curauá fiber, through the development of a polymeric composites with natural curauá fiber as assist to alternatively the designer in the preparation of an ambience with better thermal performance. It is intended to minimize the use of refrigeration that consume high rates of electricity, while improving the economy of northern Brazil and the conditions of life population that cultivates curauá. The results indicate that the infrared thermography has potential for use in qualitative monitoring of different materials kinds. In this context, this research is justified according studying the efficiency of curauá fiber as thermal insulation. Studies already developed by Ford et al. (2007); Neira (2005); Araujo and Mothé (2004) show the efficiency of the natural curauá fiber associated with sisal fibers, coconut and the formulation of the composite. The research seeks to improve the thermal confort of housing while contributing to the reduction of electric power consumption spent on the use of cooling systems, using a renewable and sustainable thermal insulation system. The purchase of electrical equipment is the most practical way to get thermal confort within the ambience, but reflects in the high consumption of electrical energy, according to calculations provided by Eletrobás (Brazilian Electric Central), an air conditioner of 10000 Btus, working daily for a period of 8 hours for 30 days, generates a cost of R\$136,00 in energy bill, a value impacting on household budget of family that have income of a minimum wage.

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## Innovation in the techniques of decorative finish on Brazilian ornamental seeds: design applied to products with sustainable profile

### Lia Paletta

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lia.paletta@gmail.com

### Sebastiana Lana

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ sebastiana.lana@gmail.com

The present research shows the results for the qualification for obtaining a master's degree in design from the University of the State of Minas Gerais. The research presents Brazilian ornamental seeds and its relation with fashion, jewelry and the biojewel market. Currently, with all the attention that governments and businesses provide to products and processes that do not harm the environment, grows the demand for natural or minimally processed products. The main objective is to present a proposal to enhance and create new decorative finishes in the Brazilian ornamental seeds that are already usually applied in the production of fashion accessories.

The work addressed machining techniques using several tools such as sandpaper, reamer, drill and cutting disc in order to create different sculptural shapes in the seeds as well as contrasts between the peel and the seeds interior.

A second phase of testing was conducted using dyeing techniques aiming to create a color gradient, the lightening of the natural color of the seeds and the use of masks to produce textures in the surface. All techniques were applied to reach results there are not yet seen on the traditional biojewel market.

In addition to the development of new decorative finishing, the research also approaches how the modern use of Brazilian ornamental seeds as material for the production of fashion accessories, is part of the native culture that was absorbed and integrated by the modern society. The use of ornamental seeds in the manufacture of fashion accessories has roots in Brazilian indigenous culture, but not limited to it. There is the need to highlight the influences suffered by many different peoples such as the European colonizers and the African slaves who brought new forms, materials and uses for adornments used in the Brazilian territory.

Another factor that helps in a greater acceptance of the use of ornamental seeds is the environmental awareness which has been growing in recent years. Consumers are increasingly aware and seek products that are sustainable, which is one of the aspects of the biojewel.

And finally, as in jewelry the artist, artisan or designer can create decorative finishes for the noble metals as a way of differentiating a product, the development and application of new finishes for ornamental seeds may present the same kind of result, and shows a field to be explored . The finishes techniques created allowed to produce results that are a differential on more competitive products.

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## The contribution of multicultural Brazilian tradition to a new vision of design

**Eduardo Romeiro Filho**

Doutor, Universidade Federal de Minas Gerais, Brazil

\_\_\_\_ romeiro@ufmg.br

The economic crisis started in 2008 brings an opportunity for discussion of issues related with the economic model adopted by developed countries and the necessity of changes in it. This is preceded by a discussion about the necessity of a way of life that respects the planet environmental limits and a proposal of a “slow” way of life, less individualistic and healthier, focused on social improvement (CAI, 2008; HARTLEY, 2005; MERONI, 2007). This paper presents a contribution to design based on a new archetype of products, bearing in mind the traditional Brazilian way of life, with cooperative principles of production, sense of “social property” of products, common use of material goods and natural resources.

The design activity is usually presented as process of product development based in an industrial production model, aimed to conception of goods to human necessities in different ways and levels. However, the majority of industrial products is designated to individual applications and highlights the characteristics linked with personal status. These characteristics are established from social paradigms of individual (and financial) success and applied in luxurious residences, sport cars, electronic gadgets etc.

Meanwhile, the Brazilian cultural tradition is based in different principles. While the Brazilian high class people imitates the European and North American way of life, adopting their habits and individualistic use of goods and products, the low classes presents a set of habits resulting of miscegenation between the indigenous autochthonous population, the Portuguese colonizator and the African slaves. Diverse groups in Brazil (especially in the low classes) preserves uses and behavior that look offensive or depreciative to the high classes, like a characteristic sense of “laziness”, that cannot be justified in a society based in intensive work and high levels of material goods consume.

Using examples from local tradition (ROMEIRO, DIEHL e CRUL, 2010, ROMEIRO et al, 2010, BRAGA and ROMEIRO, 2011), this paper intends to contribute to a discussion about a new identity to Brazilian Design, observing the cultural contribution of the Brazilian people, based in a “slow way of life” perspective, in a collaborative system and a social use of products. Cases as “mutirão” (a collective production process, usually adopted in houses building in Brazilian countryside) or the indigenous “malocas” (a communal house) will be presented and discussed as elements for a new design perspective, focused in communal products and collaborative ways of social interaction.

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## Environmental requirements on design of consumer electronics: contributions to obsolescence management

### Igor Goulart Toscano Rios

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_ igor.rios@gmail.com

### Rosemary Bom Conselho Sales

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_ rosebcs@gmail.com

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_ regina.alvares@gmail.com

The quick obsolescence of consumer electronics has caused environmental problems, reflected in the reduction of natural resources and in the increase of waste production, due to the accelerating demand for new products. Waste electrical and electronic equipment (WEEE), also known as electronic waste (e-waste), became the fastest waste stream production of post-industrialized world. Seeking solutions to minimize the negative effects of production, use and improper disposal of these products are becoming an global concern. The development of specific legislation on the international scene, starting from the directives WEEE (Waste Electrical and Electronic Equipment) and RoHS (Restriction of Hazardous Substances) restricts the inadequate disposal, promotes the replacement of toxic substances and encourages recycling and recyclability, through concepts like extended producer responsibility, reverse logistics and life-cycle analysis. In Brazil, the National Solid Waste Policy, enacted in 2010, classifies e-waste as special waste, and requires manufacturers, importers and retailers of electronic equipment to promote reverse logistics, recycling and proper final disposal. The system of production and the obsolescence management of these products begins to be reviewed under the law. One aspect of product design seeks to develop new possibilities in obsolescence management, through new opportunities on production, use, maintenance and disposal. In this sense, this research aims to verify the state of art of consumer electronics design in Minas Gerais, regarding the identification of design environmental requirements.

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## Gems and jewelery: management by design applied to the value chain of local productive arrangements

### Raquel Canaan

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ raquel.pcanaan@gmail.com

### Marcelina das Graças de Almeida

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ marcelinaalmeida@yahoo.com.br

The massification of culture in post modern took society to other ways, establishing a dialogue between globalization and local values . In this context, the design, through the ability to perceive and interpret potential technical and social expectations, also changes its approach.

The designer must develop the ability to read the past, interpret the present and project the future, which should be solved taking into account the evolution of society in their expectations and limitations. According Laundry and Emude (2006) apud Krucken (2009), social innovation is to change the way individuals or communities act to solve their problems or create new opportunities. Examples are slow movements, communities and creative economies, local production and fair trade. In accordance with the Termo de Referência para Política Nacional de Apoio ao Desenvolvimento de Arranjos Produtivos Locais (APL), this consists of significant number of enterprises and individuals who work around a productive activity, in the case of this project, productive arrangement of gems and jewelery. According to this document, a component of this action strategy of the Federal Government for the development of the country consists in the realization of integrated public policies for Local Production. The acting in APLs, in this sense, values cooperation, collective learning, tacit knowledge and innovative capacity of local firms and institutions as key issues for increasing the sustainable competitiveness, strengthening governance mechanisms.

The innovative capacity is directly related to the design of the action, becoming the strategy of differentiation and value the significant aspects of APL, giving them meaning and significance. As part of a complex APL, with diverse needs, activities and material and human resources, the design can operate at different levels, which requires a coordinated and integrated management.

Managing the design can be understood as the implementation of the design through a formal program of activities within a corporation. In the specific case of an APL in gems and jewelery sector, where aesthetics is fundamental value perceived by the end consumer, the strategic management of the design becomes crucial in building the identity of the organization and its products. This work covers the production process of gems and jewelery sector and linkages and value networks that are established during this process, where the concept of value chain gains the broad dimension of dynamic network, extending its range and, consequently, the complexity of interrelationships.

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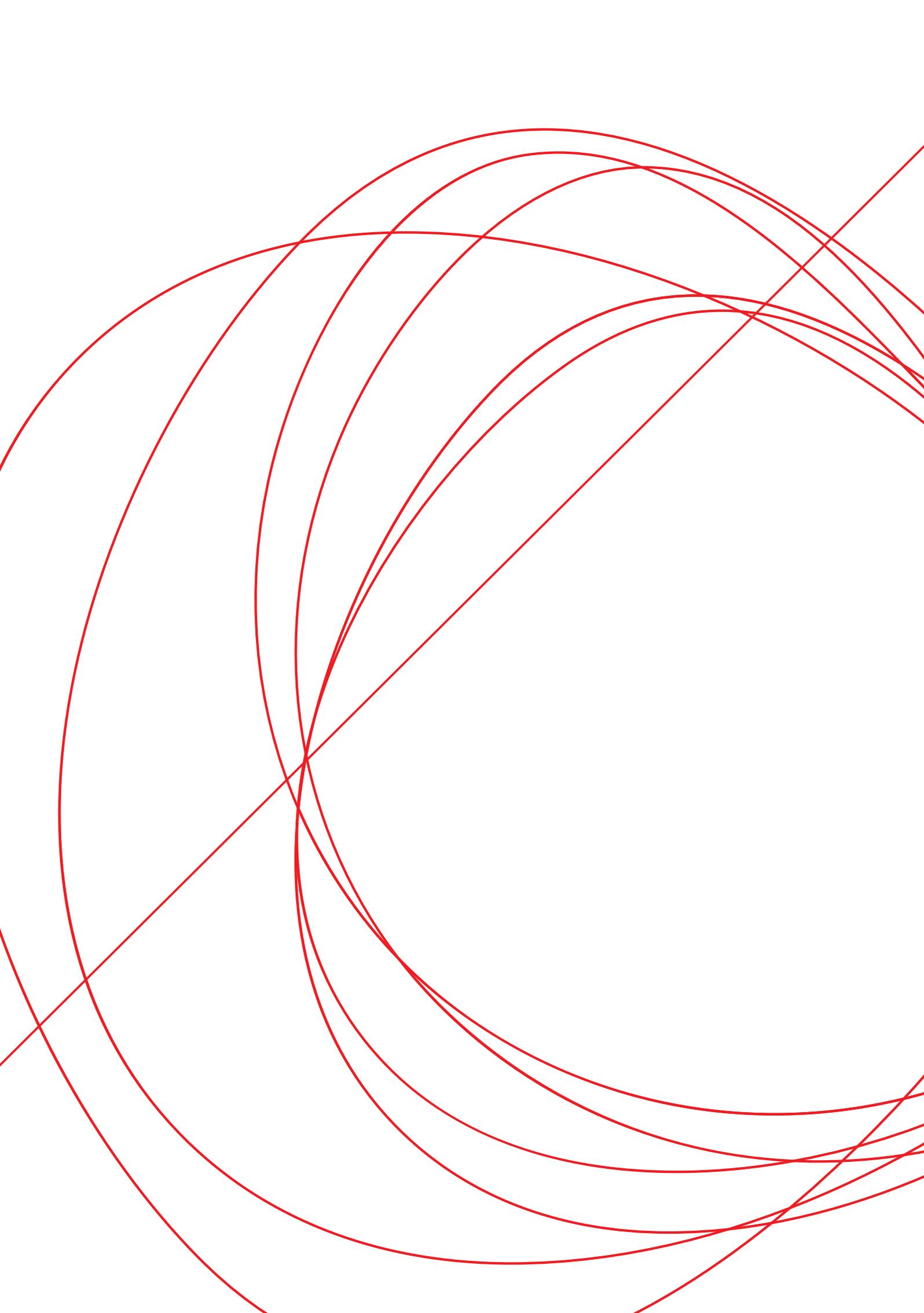
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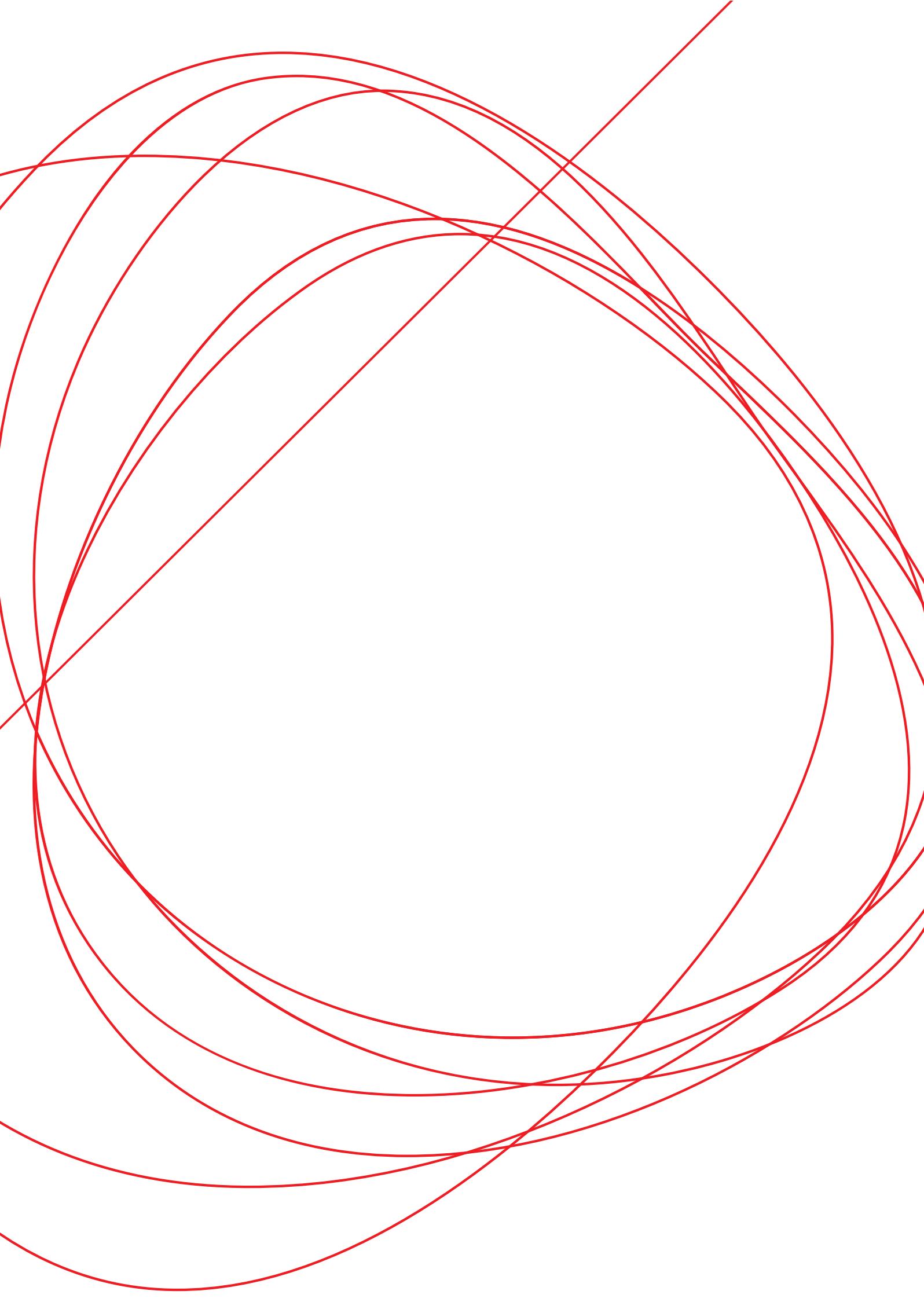
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# TRACK 6

## THE UEMG TALKS ABOUT ITSELF

### POSTER - RESEARCH

Total of selected posters  
on this topic: 18 posters

#### **Creative process in design: the importance of the repertory**

——— Caroline Salvan Pagnan and Artur Mottin

#### **Design-driven organizations: models and principles of design management**

——— Érico Franco Mineiro and Natália Junqueira Rodrigues

#### **Development of criterias to be applied in design of vacuum thermoforming products**

——— Artur Mottin, Carlos A. S. de Miranda and Magnun J. D. Nunes

#### **Nova Lima communities' cultural identity: the design applied in craft and sustainable tourism**

——— Rita Engler, Georges Machado Michailidis, Daniela Menezes Martins and Nadja Maria Mourão

#### **Ideal project: innovation in lapidary equipment by design, ergonomics, new materials and processes**

——— Maria Bernadete Santos Teixeira, Adriano Aguiar Mol, Pedro Henrique Pereira Nascimento and Mayare de Souza Moura Maciel

#### **The use of infrared's technology as tool to measure thermal conductivity of various materials**

——— Sebastiana Lana, Jose Nunes Filho ,Davi Neiva Alves and Marina Almeida Barcellos

#### **Reviewing the story: image and sound management of document collection taken in the Centro de Estudos em Design da Imagem da Escola de Design**

——— Marcelina das Graças de Almeida, Rosemary Portugal Gonçalves de Souza, Luana de Oliveira Guimarães Rocha and Vanessa Cardoso Vilaça

#### **Design for sustainable city: survey of cultural history recyclable landfill**

——— Nadja Maria Mourão, Letícia Hilário Guimarães and Heloisa Helena Couto

**Design, technology and clientelist networks of jewelery: a study of cultural miscegenation in colonial jeweler of Minas Gerais**

——— Luiz Ozanan and Aline Cavalcanti Habib

**Ergonomics to wooden furniture industry: support to local furniture cluster of Minas Gerais**

Alonso Lamy de Miranda filho, Rosângela Míriam Lemos Oliveira Mendonça, Beatriz Martins da  
——— Costa Furtado de Oliveira, Maria José Canêdo Sanglard and Gilberto Almeida Júnior

**Fantastic images from carnaval of Recife**

——— Cristiane Gusmão Nery, Lucas Oriel, Akemi Takenaka, Débora de Lima e Melo and Bia Braz

**Recyclable solid waste: sustainable design and innovation for the environment**

——— Nadja Maria Mourão, Alice Andrade Guimarães and Jacqueline Ávila Ribeiro Mota

**The descriptive study about the academic production focused on healthcare projects, of the School of Design – UEMG/BRASIL, in the period of 2006-2011**

——— Felipe Sacchi Miranda, Edson José Carpintero Rezende, Johelma Pires de Avelar,  
Luisa Pereira Inácio and Nathan Henrique Fonseca de Almeida

**The use of visual merchandising in the creation of corporative spaces stimulating the user-space relation**

——— Heloísa Helena Coutto, Cássia Grazielle Aveliz Rodrigues and Mylene Fernandes

**Cast Iron cookware artifacts: value aggregation from design and by the selection and application of ceramic coating processes**

——— Carlos Alberto Silva de Miranda, Regina Álvares Dias, Artur Caron Mottin, Paulo Henrique Campos Prado Tavares, Robert Luiz Gomes, Daniel de Souza Gamarano and Antonio Valadão Cardoso

**Perception of materials inside the vehicle: model Permatius-auto**

——— Regina Álvares Dias, Ivan Santos, Antonio Lucas Celestino da Silva, Eliana de Carvalho Ferreira, Isadora Graciana da Mota Prado, Sarah S. Braga Estanislau, Cássia Aveliz and Rachel Marinho

**Articulating business functional interfaces at the front-end of the design process**

——— Regina Álvares Dias, Érico Franco Mineiro and Samuel Matos

**Design and innovation: the concept of creative community as an inductor for sustainable development**

——— Rita Engler, Carlos M. Pereira, Daniela Menezes Martins and Nadja Maria Mourão

TRACK 6  
poster - research

## Creative process in design: the importance of the repertoire

### Caroline Salvan Pagnan

Graduate student, Redemat and Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ carolinespagnan@gmail.com

### Artur Mottin

M.Sc., Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mottindesign@gmail.com

In the design profession, the creative process is strongly present due to the need for developing innovative solutions for the design activity. It is analyzed how the construction of a repertoire rich in design linked content and linked to the life experiences influence the development of this creative process more efficiently. For this analysis, it was built an overview of how creativity is encouraged throughout the life of human beings in each phase, allowing the assessment as is the construction of this repertoire from the experiences.

Creativity, despite being widely discussed, has an aggravating factor for the absence of a definition that is universally accepted by all the theories that study: the fact of being linked to the mental capacity of each individual. Through the intersection of theories has been identified the strong link between three key factors: intelligence, creativity and repertoire. This relationship established between intelligence, repertoire and creativity directly influences the development of interpersonal creativity needed to solve the problems of an individual. Overall, since the childhood the individual is encouraged to resolve situations, and for this, search on your knowledge something that can assist him in solving your problem.

It is important that the designer is provided with information, forming a broad repertoire, which are formed part by the contents accumulated throughout life, part by the content tied to the design that will serve as working tools as well as specific information about the context of an ongoing project. Moreover, it is important that this repertoire is under constant construction, since the areas covered by the projects vary, and more information becomes available, emerging new standards and new content that will compose the network of interconnected data essential for the occurrence of the creative process.

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## Design-driven organizations: models and principles of design management

### Érico Franco Mineiro

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ erico.acad@gmail.com

### Natália Junqueira Rodrigues

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ nat.junqueira6@gmail.com

The aim of this research project is to characterize the design management models adopted by organizations competing in their segments by assuming an intensive guidance of capabilities and efforts to achieve differentiation by design, as well as identify design management principles intrinsic to the positioning of these organizations. This research is justified in that, although there are records of these theoretical positions in the literature - especially in the form of short case studies - there is not empirical studies of the theoretical framework related. The methodology is guided initially by the literature review on the subject, and in a second moment by the empirical exploration of secondary data published by the organizations themselves. The observed data will be compared with theory, and the expected results are related with find and highlight common features in the positions taken by these organizations in relation to their design resources allocation. By now the first stage of the research is completed. Some publications were reviewed and information collected from organizations like Alessi and Bialetti, as 'product launch dates' and 'store openings' around the world were analyzed and provided the basis for the definition of criteria for the next stages of this research.

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## Development of criterias to be applied in design of vacuum thermoforming products

### Artur Mottin

M.Sc., Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mottindesign@gmail.com

### Carlos A. S. de Miranda

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ carlosasmiranda@gmail.com

### Magnun J. D. Nunes

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mjdnunes@gmail.com

The process of vacuum thermoforming of thermoplastics polymer sheets forming is heated using atmospheric vacuum. Research on the process of vacuum forming was aimed to enhance the criteria to be applied in the design of products generated from this technique.

Seeking to give the designer more in-depth knowledge on the origin and the stages of the process, were compiled information regarding type of machinery, mold type, specifications and limitations, as well as the main polymers applied to process to give the designers greater efficiency and security.

In order to exemplify the surveys submitted, was held an experimental study in thermoforming, in order to prove the principles raised, in addition to the present boundaries in the process.

Like other processes, the vacuum thermoforming process has several limitations and formal specifics. Such specifics must be analyzed from the choice of the type of machinery to the production of the mold and choice of technique.

To better match the project to the process, some specifications must be followed by the designer, among which are the type of mold being used, as well as the material for which it is created, respect the values of minimum angles, extraction, if there is some depth, cavity and other discussed in this paper.

The in-depth knowledge of peculiarities in each step, and the information gathered in this exploratory research, allow the designer to extend their field of alternatives for solving projects, providing greater security and means for achieving good results with the use of the vacuum thermoforming process.

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## Acknowledgments

Fundação de Amparo à Pesquisa do Estado de Minas Gerais, FAPEMIG.

## **Nova Lima communities' cultural identity: the design applied in craft and sustainable tourism**

### **Rita Engler**

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rcengler@uol.com.br

### **Georges Machado Michailidis**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ georgesgd@gmail.com

### **Daniela Menezes Martins**

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ danielafalbo@hotmail.com

### **Nadja Maria Mourão**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nadja2m@gmail.com

Cultural identity is related to local knowledge of a social and territorial group. The anthropological interpretation defines that cultural identity of a social group is constituted by its environment and personal items, clothing, cooking, music, myth, belief, religion, ethics. It characterizes and differentiates a social group from another one from a certain region. The objective of this research project is to recognize the cultural identity as a competitive advantage for sustainable tourism and crafts of a community in the city of Nova Lima, Minas Gerais. Other objectives are to classify the cultural identity of a community included in Nova Lima's touristic routes ; investigate the relation of cultural identity in sustainable development, identify significant and representative elements of the iconography of the community; apply symbols and graphic patterns to handicrafts and services related to tourism. The research method is applied to São Sebastião das Águas Claras study case. The structure of the research is based on three steps: the first one looks for reviewing the contents of the bibliography and implementing the iconographic research. The second step selects data. Finally, the third organizes the data and applies it. The expected results are the development of graphic icons and patterns to illustrate its potential applied to craft products and promotional materials. Examples: signage, graphic projects for cultural and sport events among other applications. The project hopes to contribute to the development of handicrafts of the studied region.

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Fundação de Amparo à Pesquisa do Estado de Minas Gerais, FAPEMIG.

## **Ideal project: innovation in lapidary equipment by design, ergonomics, new materials and processes**

### **Maria Bernadete Santos Teixeira**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ teixeira.berna@uemg.br

### **Adriano Aguiar Mol**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ adriano.mol@uemg.br

### **Pedro Henrique Pereira Nascimento**

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ phpnascimento@gmail.com

### **Mayare de Souza Moura Maciel**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mayaremaciel@gmail.com

This proposal was approved in the Vale/MCT/Nacional Research Council (CNPq) Call No. 12/2009, under the subject line of development and optimization of equipment and technology for gemstone polishing. It has the participation of companies based in the municipalities of Belo Horizonte and Lagoa Santa-MG.

The named IDEAL project aims to develop a line of improved gemstone cutting machines, through collaborative R&D within a multidisciplinary team consisting of experts in cutting, mechanics, materials and production engineering, and product design.

The project will use open innovation in product development, lead by the staff of the Center for Studies in Gems and Jewelry Design - CEDGEM / UEMG, together with manufacturers of equipment for cutting, to the idealization of a series of machines tailored to address key steps of gemstone processing.

The development process is based on results from research and analysis on the process of cutting, state of the art technology employed, ergonomic studies, relevant technical standards for equipment developed and understanding of the cutting equipment market. The information will be collected on references, interviews, site visits and analysis of existing products. During the development will be worked out further models of different complexities and materials for investigations and ergonomic, functional and productive equipment adjustments.

At the end of the project will be produced at least five different prototypes of machines for production testing, with the support of the Laboratory of Integrated Modeling, Prototyping and Testing School /LEMP at the Design School / UEMG.

In the case of final products establishing patents, projects will be submitted for registration with the Brazilian Intellectual Property Agency (INPI) and subsequently licensed exclusively to the participating companies with the support of the Center for Technological Innovation - NITDesign / UEMG.

Besides the thematic line of equipment development, this proposal also includes the training of human resources in priority sectors by bringing together researchers, professionals from different areas of expertise and equipment manufacturers in this restricted area of expertise, which is the gemstone cutting.

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Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq.

## Using Infrared technology to measure surface thermal exchanges generated among products and users

### Sebastiana Lana

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ sebastiana.lana@gmail.com

### Jose Nunes Filho

Graduate, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ josenunesf@terra.com.br

### Davi Neiva Alves

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ dneivaalves@gmail.com

### Marina Almeida Barcellos

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ marinabarcellos@gmail.com

The infrared thermography as a non-destructive testing technique (NDT) has evolved considerably in the last decades due to its characteristics of non-destructive and non-invasive inspection of surface temperature field, through an image generated by thermal radiation, emitted by the surface of every type of materials. The aim of this project is to apply this technique on products used to sit (chairs) and walk (shoes), it can measure the responses in relation to the thermal exchanges between the product and the user and so, inferring about the user comfort. Introductory human biomechanics concepts applied to the walking and sit acts, were analyzed to help understanding how capturing the heat generated in these acts would help us to design better products.

The thermal comfort indexes were developed based on different aspects of comfort, and can be classified as:

- Biophysical indexes – based on heat exchange between the body and the environment, correlating the comfort's elements which the heat exchanges gives rise to these elements;
- Physiological indexes – based on physiological reactions originated by terms known of dry air's temperature, temperature mean radiant, humidity and wind speed;
- Subjective indexes – are based on subjective sensations of comfort experienced on terms in which the elements of thermal comfort vary.

The thermal comfort international standards were developed by International Organization for Standardization (ISO) and by American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), based on studies that involve variables which influence thermal comfort, whether or not in an environment conditioned. A NR-17 and the NBR 6401 standards are Brazilian terms about it (GRANDI, 2006).

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## Reviewing the story: image and sound management of document collection taken in the Centro de Estudos em Design da Imagem da Escola de Design

### Marcelina das Graças de Almeida

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ marcelinaalmeida@yahoo.com.br

### Rosemary Portugal Gonçalves de Souza

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rose.gal@globo.com

### Luana de Oliveira Guimarães Rocha

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ luana\_de\_oliveira3@yahoo.com.br

### Vanessa Cardoso Vilaça

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ dessinhakju@hotmail.com

The preservation of the memory, as property of conservation of certain information is a pertinent way so that let us can bring up to date and keep to impressions and last information. Therefore it is basic that mechanisms of protection and conservation of the corporeal properties, incorporeal and symbolic are thought to constitute in a social universe. In this direction since 2009 it is being implanted the ASI (Archive of Sound and Image). It is the first center of information specialist in images (fixed and movement) and audio of UEMG (University of the State of Minas Gerais) and one of the few existing in the city of Belo Horizonte, congregating documentary quantity formed by printed matters of the most diverse natures, beyond films, videos, photographs. The principle was to catalogue and describe the kept documentary mass in the dependences of the Center of Studies in Design of the Image. Also a research instrument was established to make possible the access to these documents to all the interested parties in consulting and the same to extract information for the professional and academic use. The ASI is being constituted as a space for preservation of the memory of an institution of education and parallel worries about the preservation of the history of design and the visual arts, especially in what it is mentioned to the history of Belo Horizonte.

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Fundação de Amparo à Pesquisa do Estado de Minas Gerais, FAPEMIG.

## Design for sustainable city: survey of cultural history recyclable landfill

### **Nadja Maria Mourão**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ nadja2m@gmail.com

### **Letícia Hilário Guimarães**

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ hg.leticia@gmail.com

### **Heloisa Helena Couto**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ hhcriar@yahoo.com.br

The stabilization process of urbanization and increased consumption contributed to the significant increase in solid waste generation. This study sought to ascertain what was historically the waste generated by the population of Belo Horizonte, in the last 20 years. The project sought to determine what new proposals to reduce waste in the search for new systems to society, through the vision of design environments. The research method was case study. The municipal landfill was the object of research. The landfill was established in 1975 on the banks of the BR-040. It had, in the surrounding region, some homes, farms and ranches. The city has grown haphazardly, accelerated, originated from the periphery with problems of urbanization. Today the capital is home for 2,375,444 inhabitants, with a daily generation of 4,500 tonnes of waste, as reported by SLU / PBH. The volume of solid waste disposed by 2.3 million residents of the capital put at risk the policies of the city's waste treatment, which has run a landfill and has moved to a new landfill. It's a heavy load, if one considers the 22% increase in the amount collected and grounded in the capital in the last decade. The survey results report that some solutions have been deployed in the city: geotechnical monitoring of the landfill in Belo Horizonte, Minas Gerais Reference Center on Waste (CMRR), the Receiving Unit tires (URP), the composting program, the Program police community sweeper. Among the academic projects, may be quoted the project "Clean Build", which aims to recycle the sacks of cement and mortar, arising from the construction. This material is used as a component of the AKS7 composite applied in new proposed design. Another example is the "Use proposal for construction waste, for revitalization of the built environment: Vila Paquetá." The goal is to generate a new mortar linings. The city is booming with construction of internal roads and implementing improvements in the transport system. The oncoming international football event, FIFA 2014, other modifications will be established. Thus, possibilities exist for the design work, which will certainly contribute to new products with recyclable waste.

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Fundação de Amparo à Pesquisa do Estado de Minas Gerais, FAPEMIG.

## Design, technology and clientelist networks of jewelery: a study of cultural miscegenation in colonial jeweler of Minas Gerais

### Luiz Ozanan

PhD student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ lozanan@gmail.com

### Aline Cavalcanti Habib

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ donalisbela@hotmail.com

Minas Gerais, since the discovery of gold in its lands, was responsible for the economic, social and cultural life growth of the Colony. The transit of people, along with the transit of objects, knowledge and experience, was part of a connection between Minas Gerais, other Brazilian regions and other countries. This connection reached Portugal, especially the cities of Lisbon and Porto, important centers of European jewelry.

Portuguese traders associated their capital to overseas trading, and to meet the demand on that side of the Atlantic, these traders had to keep, somehow, the stock of products to supply with. So, products like salt, soap, oil, wine, leather, textiles and others, arrived in Minas Gerais through the representatives of the merchant class of the Metropolis, by "special concession or privilege".

A considerable number of artifacts that circulated within the region of Minas Gerais were the jewelry. Although Minas was responsible for the production of gold and precious stones, other materials were also part of the colonial design tastes in the seven hundreds, such as little pearls, amber and coral, from the East and the Mediterranean Sea.

The eighteenth-century mining company was accustomed to own various types of jewelry for quite different reasons. Some would wear them as amulets, others as a sign of social distinction. But most wore them for religious reasons. What attracted the most attention, according to the registry documentation, is that there wasn't a piece of jewelry for each social group. In other words, those who wore charms such as amulets and artifacts in coral, also had rings, earrings, saint medals and crucifixes.

This poster aims to analyze the diversity of jewelry that circulated in Minas Gerais during the eighteenth century, taking into account the transit and use of cultural materials in the colonial jewelry.

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## Ergonomics to wooden furniture industry: support to local furniture cluster of Minas Gerais

### **Alonso Lamy de Miranda filho**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ alonso\_lamy@uol.com.br

### **Rosângela Míriam Lemos Oliveira Mendonça**

PhD student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ romiriam@uai.com.br

### **Beatriz Martins da Costa Furtado de Oliveira**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ beatriz2000@yahoo.com.br

### **Maria José Canêdo Sanglard**

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ mjcs@uai.com.br

### **Gilberto Almeida Júnior**

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ gajunior@gmail.com

The project proposes the incorporation of quality attributes into the furniture industry products from its ergonomics, physics and cognitive analysis.

Its objective is the real inclusion of ergonomic values into the furniture industry of Minas Gerais, since the realization that, in most of cases, the approach of the discipline EGONOMICS is too shallow, only taken in consideration as a sales argument, and not presented in a broad and correct way.

The project proposes the study of existing products, that should go through heuristic analysis and usability tests, in a transcription of techniques used by Software Engineering that has as major point, the interpretation of results, in despite of just collecting numerical data (for example, tests that evaluate the expression of users state of mind, parallel to a performance analysis.)

To allow an ergonomic, physic and cognitive analysis of furniture products, the project foresees the elaboration and application of tests with volunteers, in order to make products more compatible with their users in terms of operation, maintenance, comfort, safety and health. All of this in order to enhance efficiency of relation between users and theirs systems of work or leisure and to reduce the probabilities of accidents, damages and mistakes. Those tests also highlight the perception of marketing requisites into the products in study.

The Prouso Project also aims to find one important strategy to face the market resistance to change – will participate the tests, products of enterprises that are aware of the market value for ergonomic design. Also the results dissemination into the market will be aid by its own natural “influence” in other productive layers.

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## Fantastic images from carnaval of Recife

### **Cristiane Gusmão Nery**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ crisnery.av@gmail.com

### **Lucas Oriel**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

### **Akemi Takenaka**

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ akemi.i.a@gmail.com

### **Débora de Lima e Melo**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

### **Bia Braz**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ bia@biabraz.com

This work had as its purpose to review and rethink the legendary Carnival of Recife in other heuristically parameters. The central objective is to risk proposing an aesthetics model that can be applied in the editing and finalizing of research projects, one which see its subjects through a Visual Anthropology bias. The proposed scheme is made up of five stages: photographs inserted between the paragraphs; photographs organized in plates where the text are captions; photographs placed without text creating a visual narrative; artistic interpretations/expressions of ethnographic material; assembled photographs with audiovisual support.

In the introduction how the fieldwork was accomplished will be explained, from the selection of images to the creation of designs and to the final editing. The chapters apply the first four stages of the model to examine the Carnival of Recife. The images are presented as an artistic expression of ethnographic material, and also offer a review of the celebration that is Carnival, through the double mediation of graphic design and photographic images: images that travel in the memory and the imagination of the living.

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Fundo de Apoio ao Ensino, à Pesquisa e à Extensão/UNICAMP, FAEPEX.

## Recyclable solid waste: sustainable design and innovation for the environment

### **Nadja Maria Mourão**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ nadja2m@gmail.com

### **Alice Andrade Guimarães**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ aliceaguimaraes@gmail.com

### **Jacqueline Ávila Ribeiro Mota**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ jacquelinearmota@hotmail.com

In sustainability, the design seeks new ways to develop products and services, qualified as a tool to achieve innovation through competitive advantages. Innovates and adapts constantly through planning, strategy, marketing, quality and form of production systems. The production of solid waste in developing countries continues to expand apace. In Brazil, the growth rate of waste generation increases in proportions greater than the rate of population, and disposal of such waste is largely deformed gives inadequate. There is need for studies and methods for sustainable development throughout Brazil. The country seeks ways to lack of resources and appropriate conditions for innovation. It is the scarcity of natural resources needed to ensure the maintenance of future generations, the welfare of human beings in contemporary society and the changing paradigms that favor choices that are more compatible with environmental needs. This project investigated the solid waste recycling compatible with the production and innovation through sustainable design and urban environments. Were addressed, the techniques of exploratory studies and bibliographic research aimed at better development. The method adopted was exploratory case study. To limit the analysis, beyond the cut in the course of Design Environment and sustainability, a study was conducted specifically for the documentation of the models surveyed. Taking advantage of technological advances on the world stage, it appears that the user needs as a whole, are related to the comfort, beauty, usability / practicality, and especially with the economy of production and use of a product or service. This design enables the transmission of social messages through visual, part quality in their competitive features and adds differential value of innovation. Therefore, it launched a challenge to discuss the implementation of eco-efficiency and eco design. Depending on the model of materials, products and spaces analyzed, it can be considered that the rejected material is measured and used as raw material in order to produce products with a higher value, such as the craft, furniture and equipment spaces for the residential, commercial or institutional, and including, structural studies of a building.

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## The descriptive study about the academic production focused on healthcare projects, of the School of Design – UEMG/BRASIL, in the period of 2006-2011

### Felipe Sacchi Miranda

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ felipesacchi.dp@gmail.com

### Edson José Carpintero Rezende

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ edson.carpintero@gmail.com

### Johelma Pires de Avelar

Graduate, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ johpires@yahoo.com.br

### Luisa Pereira Inácio

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lpi.luisa@gmail.com

### Nathan Henrique Fonseca de Almeida

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nthhenrique@gmail.com

Design goes beyond simply designing or adding value to a product or service. It can be perceived as a wide receiver of information and an integrating vocation, for demonstrating a concern that exceeds the limits of the product and considers the needs of the costumer in order to improve functional, ergonomic and visual aspects of a product, improving comfort, safety and satisfaction for the users. Among the many design areas of expertise, the application focused on solving issues in health can result in considerable improvements in user assistance, promoting improvements in their life quality. This lack of real benefit to patients may come across products, services or environments. For a qualification of this system, humanization processes should be treated as a fundamental point to be applied transversely across the health network, where new experiences are proportionate to patients. This is a new way of interaction between the constituent parts of the health system and the ones who use it; a set of principles and guidelines that will characterize a collective construction around actions in the various spheres of the system. The healthcare, especially when it comes to public health in Brazil, faces many problems and requires all professionals involved to offer their contribution to improve health indicators. The research is a descriptive study that seeks to identify in the period from 2006 to 2011, the graduation projects of ED/UEMG that characterize the production about the involvement in healthcare discounted at ED/UEMG and this

projects viability of implementation. The timeline for this research is divided into four steps: data collection, information on projects, analysis and conclusion. Until now, all these graduate projects have been covered, in all three courses, graphic design, product design and Interior design. In the product design course, were 264 projects, with only 19 of these focused on healthcare. In the interior design course, were 296 projects and 24 of these were about healthcare. Graphic design course, were 408 projects, only 12 focused on the area of healthcare. The next step in this research will be an interview conducted with the teachers who were mentors on those graduations projects, to talk about the materials and processes used in the projects and the criteria of the choices made, aspects related to sustainability, ergonomics, use and type of environment in question. This survey will reveal the overall picture of the academic production of ED/UEMG in the healthcare scenario.

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## The use of visual merchandising in the creation of corporative spaces stimulating the user-space relation

### **Heloísa Helena Coutto**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ hhcriar@yahoo.com.br

### **Cássia Grazielle Aveliz Rodrigues**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ cassia.avelizr@gmail.com

### **Mylene Fernandes**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mylenefer.batista@gmail.com

The visual merchandising is a technique that provides, among other things, the setting of spaces in order to motivate and induce customers to purchase, and if used for creating a scenographic space, facing experimentation and consistent with the values of the brand, the space works as a strategy for attracting new customers, differentiation of the competition and consequent increase in profits. This study aims to investigate how happens the perception and understanding of corporative spaces developed employing the techniques of Design using visual merchandising, scenography, colors and lighting, as well demonstrate the importance of using these tools for the creation of sensorial stimuli and for the organization of services and products in the composition of these spaces. This research will employ an interdisciplinary approach as a methodology of design, using a bibliography that will permeate many areas of knowledge in a transdisciplinary way and a field research. The central idea of the project is that all data collected will serve as a theoretical basis for the construction of a book on the subject, which will be useful as a research resource and reference for designers, architects, decorators and other interested in the subject.

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## Acknowledgments

Universidade do Estado de Minas Gerais (Programa Institucional de Apoio à Pesquisa - PAPq/UEMG)

## Cast Iron cookware artifacts: value aggregation from design and by the selection and application of ceramic coating processes

### Carlos Alberto Silva de Miranda

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ carlosasmiranda@gmail.com

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ regina.alvares@gmail.com

### Artur Caron Mottin

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ mottindesign@gmail.com

### Paulo Henrique Campos Prado Tavares

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ phcptavares@gmail.com

### Robert Luiz Gomes

Graduate, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ robertgomes.design@gmail.com

### Daniel de Souza Gamarano

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ dgdanielgamarano@gmail.com

### Antonio Valadão Cardoso

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ antonio.cardoso@cetec.br

The Minas Gerais Foundry sector is responsible for 33% of the Brazilian Market and by 18% of cast products exports. The city of Claudio, located in Centre-west region of that State, presents a peculiarity relating to this sector, as the largest pole of Latin America in castings production intended for domestic use, with more than 80 companies that produce furniture, ornaments and decorative objects and cooking utensils. The production system is archaic, with semi-artesanal characteristics, in small enterprises, with features of family administration and market-oriented retailer. From the realization of technological lag of cooking products produced by these companies, in relation to competitors and similar imported, we identified the emerging need of technological development of a coating that provides the application of colors, in addition to improving the appearance of products, making them more friendly and allowing its use in residential kitchens, have seen that the traditional products of the region have their use restricted to farmhouses

and cottages. We know that this technology is possible on an industrial scale, where we see its application in products imported from great added value that has always been available in our market from imports, with high cost and market niche. However, we note that the market begins to offer similar products with the same finish, from China, what is the relevance of this development action. However, it is necessary to investigate the applicability of this technology in the products, from the technological survey proposed in this paper, in addition to checking the possibility of adaptation of this technology to the reality of the companies in the region. To this finish is given the name of enameling, which consists of a coating process that gives a corrosion protection, in this case of cooking utensils. The enameling process is based on the fusion of thin layer of glass on the metal surface that must be protected. The enamel, for being a glass, features a sleek and hard surface, resistant to corrosion, scratches and stains. The main objective to be reached from the conduct of this research, which is funded by FAPEMIG is the full domain and transfer of ceramic coating technology of these artifacts, aiming at adding value from selection and specification of textures and colors combined with the design of the products. The work is in progress and is intended to disseminate the initial results.

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## Perception of materials inside the vehicle: model Permatius-auto

### **Regina Álvares Dias**

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ regina.alvares@gmail.com

### **Ivan Santos**

MSc, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ santos.ivan@gmail.com

### **Antonio Lucas Celestino da Silva**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ antonics@gmail.com

### **Eliana de Carvalho Ferreira**

Doctor student, Redemat, Brazil

\_\_\_\_\_ eliana@elodesign.com.br

### **Isadora Graciana da Mota Prado**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ isadoramprado@gmail.co

### **Sarah S. Braga Estanislau**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ sarahbraga3@gmail.com

### **Cássia Aveliz**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ cassia.avelizr@gmail.com

### **Rachel Marinho**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ rachelcmarinho@gmail.com

The material selection process observes a set of parameters from many areas such as engineering and environmental sphere, the practical, aesthetic and symbolic dimensions. Despite all this arsenal of knowledge available, there is still space to be explored with regard to perceptions of those who are the most interested in cars, their own consumers. Within this perspective, this research aims to formulate a method of subjective evaluation techniques of the materials perception when on consumer-product interaction.

Focused on automotive design, more specifically on the materials present on its interior is where this research is located. It enables to measure the impact of distinct characteristics of vehicles from distinct brands and differentiate themselves not only by their engines, but also equally by little details. It is considered that the subjective evaluations can be reversed on objective data and useful information helping automaker companies to gain a competitive advantage with their products.

Knowing that vehicles should attract by its design, produce pleasant sounds and offer pleasure sensations when the user touches its finishing, handle or dashboard and even the cabin's odor needs special attention, the Permatius-auto method covers visual, tactile and odor aspects of every component of the interior of the car and divides them into four groups: controls, complements, surfaces and instrumentation. It is up to the test applicator to define which groups and components will be evaluated and how. Two types of tests can be conducted: virtual and presencial tests. Virtual tests can evaluate aesthetics and meanings by the use of high definition color pictures; videos, augmented reality, models and prototypes. On the other hand a presencial test allows sensorial and emotional evaluations by using the actual product with no contact by the participants and the product with the participants interaction. With two types of tests it is possible to apply the method on the very beginning of product development and/ or on an already existing product, allowing automaker companies to better evaluate its products and measure their sensorial impacts on the target audience.

An experimental study with thirty-five participants was conducted to validate the efficiency of the method using as evaluated object a premium hatch category vehicle. All participants were interviewed and answered a series of questions about some elements of the interior of the vehicle, as the seat, steering wheel, chrome trim of multiple items and handle support of the passenger. The action was registered on audio, video and professional photography. A software is being developed to assist in the preparation of questionnaires and supporting the tabulation and statistical treatment of the data collected.

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## Articulating business functional interfaces at the front-end of the design process

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ regina.alvares@gmail.com

### Érico Franco Mineiro

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ erico.acad@gmail.com

### Samuel Matos

Ungraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ samuel.matosdp@gmail.com

Strategic decisions are made at the front-end of the design process, however there is a lack of tools and techniques that enable the articulation of different organizational functions. This problem is even more serious in micro and small enterprises, where few people assume various managerial roles. This research points out an alternative to the designer who acts within these companies. The strategic map that we propose helps to understand the functional influences that different functional areas exert on each other. This generic model of strategic map for the insertion of the design within micro and small enterprises aims to combine design-related areas, both fundamental to business success and for the insertion of design itself. Beyond understanding, the map allows strategic formulations in both design and related organizational areas. The first application of the map was made in early 2012, resulting in revisions to the model. The developed model should guide new design practices experienced by the Centro Design Empresa, facilitating planning and interactions in collaborative actions with experts from different areas.

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Fundação de Amparo à Pesquisa do Estado de Minas Gerais, FAPEMIG..

## Design and innovation: the concept of creative community as an inductor for sustainable development

### Rita Engler

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rcengler@uol.com.br

### Carlos M. Pereira

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ carloscamape@gmail.com

### Daniela Menezes Martins

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ danielafalbo@hotmail.com

### Nadja Maria Mourão

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nadja2m@gmail.com

This summary aims to study creativity in the process of sustainable development, assuming it may contribute to the sustainable development of communities in different contexts. In a saturated global market where there is a gap in products, services, innovative and critical systems, the priority is the development of applied researches that configure effective tools for sustainable development of communities located in unique contexts. In this context, transdisciplinarity design sets it in a way that will contribute to the growth and economic and socio-cultural development of the communities through the exercise of creativity. It is important to keep in mind that today it is essential to know and interact with heterogeneous groups, mediate the integration of several universes and understand cultural contexts both in product design and in systems and services in the forms of collaborative innovation and social participation. Therefore, the concept of creative communities emerged as a proposal sustainability, as alternative solutions of products, systems and services and then, a different approach where the linear relations are preferably avoided giving way to an interaction of each member of a circular. This proposal does not suggest the isolation of groups, but the expansion of the world trade network, where learning environments can be created, individuals can be transformed and culture serves as creative impulse.

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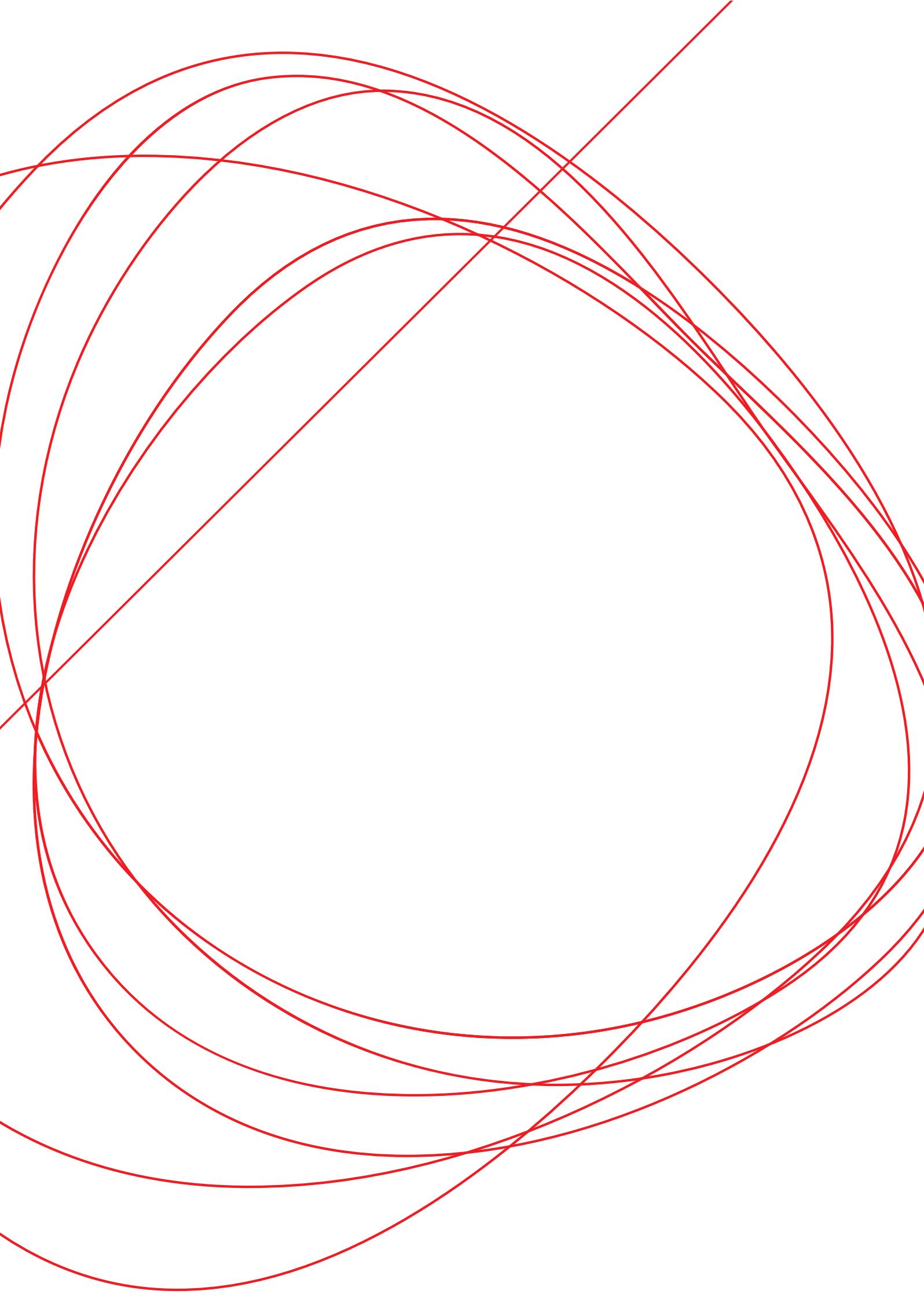
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# TRACK 6

## THE UEMG TALKS ABOUT ITSELF

### POSTER - EXTENTION

Total of selected posters  
on this topic: 6 posters

#### **A glimpse of the congado from Minas Gerais**

——— Cristiane Gusmão Nery, Akemi Takenaka and Débora de Lima e Melo

#### **Design contribution to communities' artisanal production: a practice with residues of the Cerrado**

——— Nadja Maria Mourão, Daniela Martins and Rita Engler

#### **Environmental Agenda**

——— Nadja Mourao, Marília Ávila Carvalho and Sabrina Araujo

#### **The house of the people: development activities design of environments for Abrigo Cirandinha**

——— Nadja Maria Mourão and Soraia Cabral Simões

#### **Sewn dreams: an experience from the perspective of popular solidarity economy**

——— Heloisa Nazaré dos Santos, Giselle Hissa Safar, Adler Castro Andrade and Lenise Magalhães Chaves

#### **Interface design applied to the construction of educational tools and processes using health issues**

——— Nathan Henrique Fonseca de Almeida, Edson José Carpintero Rezende, Johelma Pires de Avelar, Dener Carlos dos Reis, Felipe Sacchi Miranda and Luisa Pereira Inácio



# TRACK 6

poster - extention

## A glimpse of the congado from Minas Gerais

### **Cristiane Gusmão Nery**

MSc, Professora da Escola de Design /UEMG

\_\_\_\_\_ crisnery.av@gmail.com

### **Akemi Takenaka**

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ akemi.i.a@gmail.com

### **Débora de Lima e Melo**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil

This project aims to investigate the experience and hierophany of the Festivities of the Brotherhoods of Our Lady of the Rosary in Minas Gerais, widely known as Congado, creating relations between text and image producing an EBook of photographs.

The Festivities of Our Lady of the Rosary usually begins at Easter and are closed in December, to start the celebrations of Christmas. This is the cycle we want to describe in the book. During this period, festivities are held at the house of the brotherhoods and are also organized by the local governments of the cities.

During the years 2009 and 2011, the festivities had been registered in Photography and Video, as well had been done interviews with the participants of the Brotherhoods, allowing us to take an inventory of various groups: rehearse for celebrations, parades and community relations.

During 2011 the editorial design was developed for a book of photographs. The following steps were performed: analysis of the visual material collected, brainstorming, briefing, concept, conceptual iconographic research to generate alternative sources, graphics, color studies, imaging and layout of the text; formal decision, artwork and mock up.

In 2012 the publishing of the EBook is being prepared for the website of the School of Design/ UEMG.

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## Acknowledgments

PAEx (Programa Institucional de Apoio à Extensão - UEMG).

## Design contribution to communities' artisanal production: a practice with residues of the Cerrado

### Nadja Maria Mourão

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nadja2m@gmail.com

### Daniela Menezes Martins

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ danielafalbo@hotmail.com

### Rita Engler

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rcengler@uol.com.br

Changes are certainties in human existence that through training and transfer of popular knowledge share beliefs and values creating culture, continuously supported by additional knowledge. A major challenge for the design, the search for sustainable solutions, is the fact that the problem lies not only in increasing production to satisfy humanity but also especially in the use of resources, devoid of territorial and cultural values and identity. Design, however, can establish itself as an innovative social technology that could contribute to sustainable development and promote quality of life for communities. The objective of this study was to identify the contribution that design can bring in this context. The communities of the interior of Brazil, formed by the diversity of ethnic groups, use local natural resources for the same territory's maintenance. In the central region the Cerrado is the dominant ecosystem, which has great biodiversity but suffers serious threats of extinction. In this biome, the areas most affected by deforestation are transformed into Conservation Areas. In the environment context, the presence of humans in these areas is still discussed, especially of traditional peoples. The situation found in developing countries, like Brazil, that created their preservation and conservation areas only a few years ago, forced them to examine more deeply the relationship between man and the environment. It has been observed that there are people whose action is really highly beneficial to the conservation of the environment. The object of the research was to observe the traditional production with crop residues in communities in the municipality of Chapada Gaúcha, near the National Park Great Wilderness Paths in Minas Gerais. The region is highlighted by the cultural diversity of gauchos, backwoodsmen and other people. The local population uses extensive amount of resources from the natural ecosystem in the region. The methods used included conducting practical activities with communities, which made it possible to: identify and analyze materials, identify traditional practices of the community, analyze the relationship with the artisan community habitat, showing the potential to induce local sustainability. The results indicate possibilities of intervention in design craftsmanship. Some products from this practice have been exhibited at the 10th Meeting of Peoples. Gradually, the contributions of design to establish the product quality and the importance of crop residues as feedstock, is showing potential to promote local sustainability.

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## Environmental Agenda

### Nadja Maria Mourão

MSc, Universidade do Estado de Minas Gerais, Brazil  
 \_\_\_\_\_ nadja2m@gmail.com

### Marília Ávila Carvalho

MSc, Universidade do Estado de Minas Gerais, Brazil  
 \_\_\_\_\_ marilia.avilacarvalho@gmail.com

### Sabrina Araujo

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
 \_\_\_\_\_ sabrinaaraujodesign@gmail.com

Socio-environmental project with a focus to strengthen the extension academic activity, providing opportunities to complement the training of undergraduate students through their participation on interdisciplinary actions. The project aims to stimulate Environmental Agenda activities to encourage students and staff members of the School of Design UEMG to assume the role of co-responsible for the management of waste by reducing consumption, the use of materials and the identification and separation of recyclables in environment. Environmental Agenda activities develops awareness of sustainability education, extracurricular activities, such as: design collector cells; workshop of recycled paper blocks; study group on environmental issues, lay on the homepage of Environmental Agenda creative examples of ecological works of Designers and artists; workshops on sustainability.

A brief description of activities of the Environmental Agenda:

Designing a battery collector- The idea of creating a collector's for batteries started to make improvements in the building of sustainable practices of ED / UEMG by means of an extension project involving students from different areas of Design. The intention is to bring together students, to exchange knowledge and generate ideas for the concept of the final product.

Workshop of recycled paper blocks -This project was conceived in two stages. The first step was a workshop to teach reuse of paper in the manufacture of paper blocks. The current step refers to stick with glue and to finish the recycled paper blocks.

Study group - groups of students, teachers and stakeholders gathered in the ED to talk about current issues, the results of the Rio + 20 and other topics that follows the direction: "Where we want to get in the future?". The design is certainly one of the key areas to meet the challenges of sustainable development and be efficient about it. The Study Group allows an effective exchange of knowledge about projects and actions for sustainable development and the solutions found in the local level.

Homepage: Brazilian and international designers have been dedicated to develop products and ideas to propose environmental sustainability. Innovations are presented in the Homepage of our Environmental Project page to publicize and encourage encourage good practice.

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## The house of the people: development activities design of environments for Abrigo Cirandinha

### Nadja Maria Mourão

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nadja2m@gmail.com

### Soraia Cabral Simões,

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ soraia.cabral@yahoo.com.br

Over the past 20 years, the nursery Cirandinha in Belo Horizonte - Minas Gerais, served about 80 children that were forwarded to the relatives or adopted. Among these, a group of young people remained residing in the institution, now adapted as the Cirandinha Shelter. Young people living in the Cirandinha shelter have no family ties outside the institution. Among the young people, some living with family and constitute the support of the institution is the family they know. Social problems exist and are treated, the limitations and community support. Currently, the children of these young people move energy from the shelter house. There are shortcomings, but some can be mitigated with joy to elevate mood and life quality. The extension project "The House of the People: development of environment design activities for the Cirandinha Shelter" was prepared to propose and implement solutions to the environment design of institution. The shelter has a Cirandinha bazaar, which is the main source of revenue for maintenance of the institution. The project, supervised by the CEDTec teachers, performed a data survey, verifying the need to focus on restructuring the bazaar. The project team is cataloging all the material of the bazaar, which are numerous and quite varied: clothing, hospital supplies, computer monitors and other discarded. This survey will verify needs and possible solutions for maintenance of the institution and the execution project. Simultaneously, in preparation technique, the project is being developed to adapt the environments of the institution. The team seeks funds for the environments improvement. From adaptations of the environment, the project hopes to contribute to improve the quality of life for residents of the institution. Thus, the knowledge acquired in the academy will be its role as a means to society, through social responsibility.

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PAEx (Programa Institucional de Apoio à Extensão - UEMG).

## Sewn dreams: an experience from the perspective of popular solidarity economy

### **Heloisa Nazaré dos Santos**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ heloisasantos@gmail.com

### **Giselle Hissa Safar**

MSc, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ giselle.safar@gmail.com

### **Adler Castro Andrade**

Undergraduate, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ acalys@hotmail.com

### **Lenise Magalhães Chaves**

Undergraduate student, Faculdade Estácio de Sá, Brazil  
\_\_\_\_\_ lenise.magalhaes@yahoo.com.br

This paper presents the results of a project conducted in partnership with AFFAS - Make a Family Action Smiling and executed in the town of Sabará, Minas Gerais, which aimed to train a group of artisans seamstresses in order to give them a differential in their production and increase the group's potential for income generation. This is a group of women who mostly play the role of leader of the families who therefore have, in the activity of sewing, the main source of livelihood. The action had the participation of a teacher and two students who held workshops and interactive works by introducing concepts and methods of design to improve the process of creation and implementation practices of sewing products. At the end of the activities we saw the multiplication of learning among the members of the group and greater autonomy for the creation and development of new products, helping these people move away from the poverty line to increase their job prospects.

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## Interface design applied to the construction of educational tools and processes using health issues

### **Nathan Henrique Fonseca de Almeida**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ nthhenrique@gmail.com

### **Edson José Carpintero Rezende**

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ edson.carpintero@gmail.com

### **Johelma Pires de Avelar**

Graduate, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ johpires@yahoo.com.br

### **Dener Carlos dos Reis**

Doctor, Universidade Federal de Minas Gerais, Brazil  
\_\_\_\_\_ denercarlosreis@yahoo.com.br

### **Felipe Sacchi Miranda**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ felipesacchi.dp@gmail.com

### **Luisa Pereira Inácio**

Undergraduate student, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lpi.luisa@gmail.com

The link between health and education is guided in the idea that health is given in marks and spaces of everyday life. Completing this joint action, the design offers tools and methods to provide a better dissemination of health information in the various population segments. When it comes to youth and adolescents, the context of social networks as a vehicle for interesting work to address various issues related to health, in a fun way. This project is part of a partnership between the School of Nursing/UFMG and the School of Design/UEMG. It intends to develop digital interfaces for dissemination of information concerning the health of adolescents in a school hall in Belo Horizonte - MG, through social networks. Access to the world of information and social interaction in virtual format is higher among adolescents and young people who are more familiar with virtual environments. The project will contribute to promoting the health of young people and adolescents in social vulnerability, especially when it relates to prevention and health education. Initially there was a data collection that occurred through observation of the behavior and activities, as well as interviews with students and teachers of the classes of ninth grade, for better understand the environment and how to use the internet with the target audience of this project. The drug issue

was appointed to be worked out at first from the precepts that indicated the social vulnerability of the target audience. Then follow the conceptualization stage of the interface will be implemented rearing techniques and problem-solving activity of its own design. Then there is the record of the activities of project construction interface, starting with the development of visual search of references to the appropriate target audience, and followed the execution and completion of application screens later to set the first prototypes and wireframes. The application documentation will then be completed and then the stage of implementation and analysis of the prototypes.

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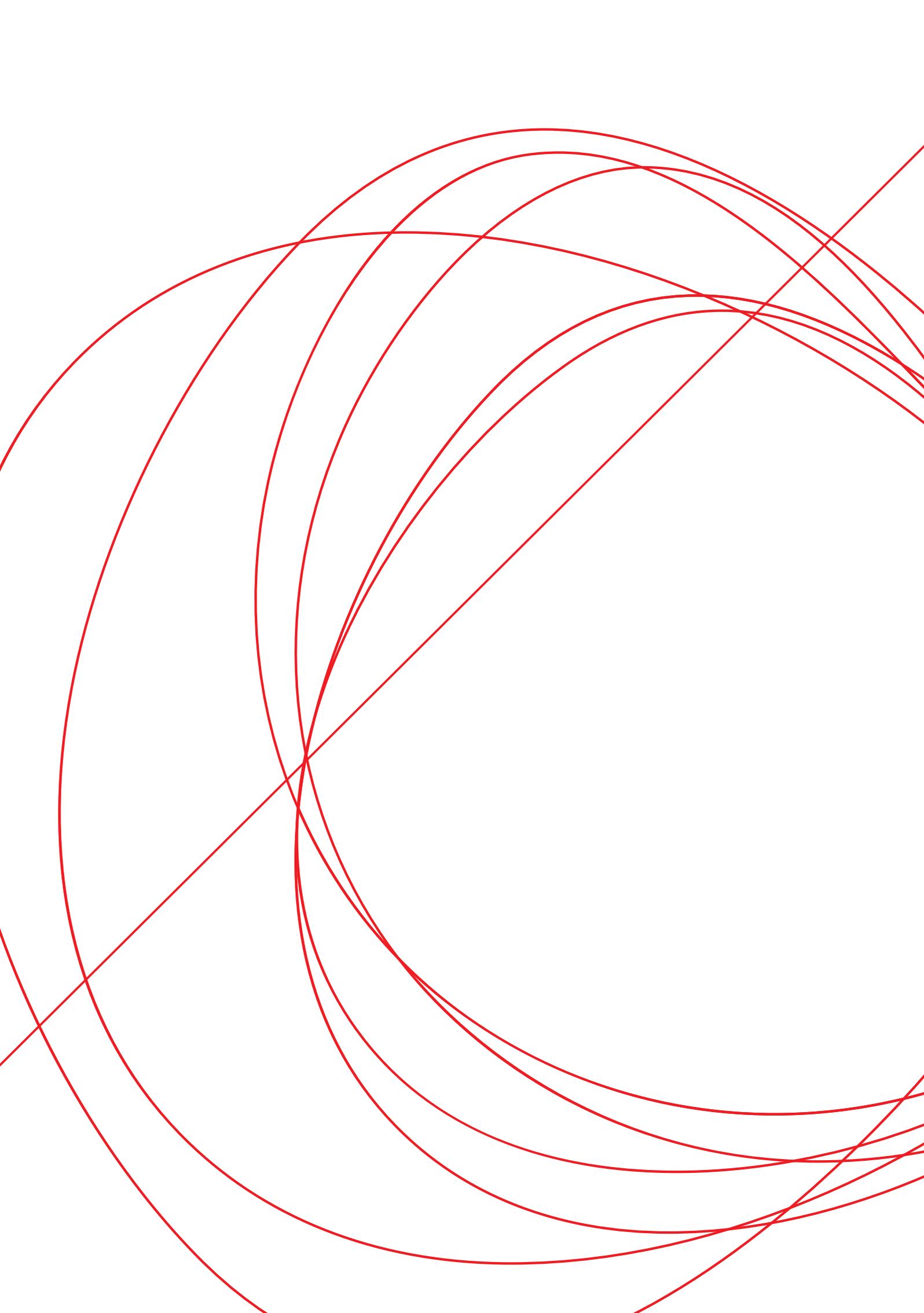
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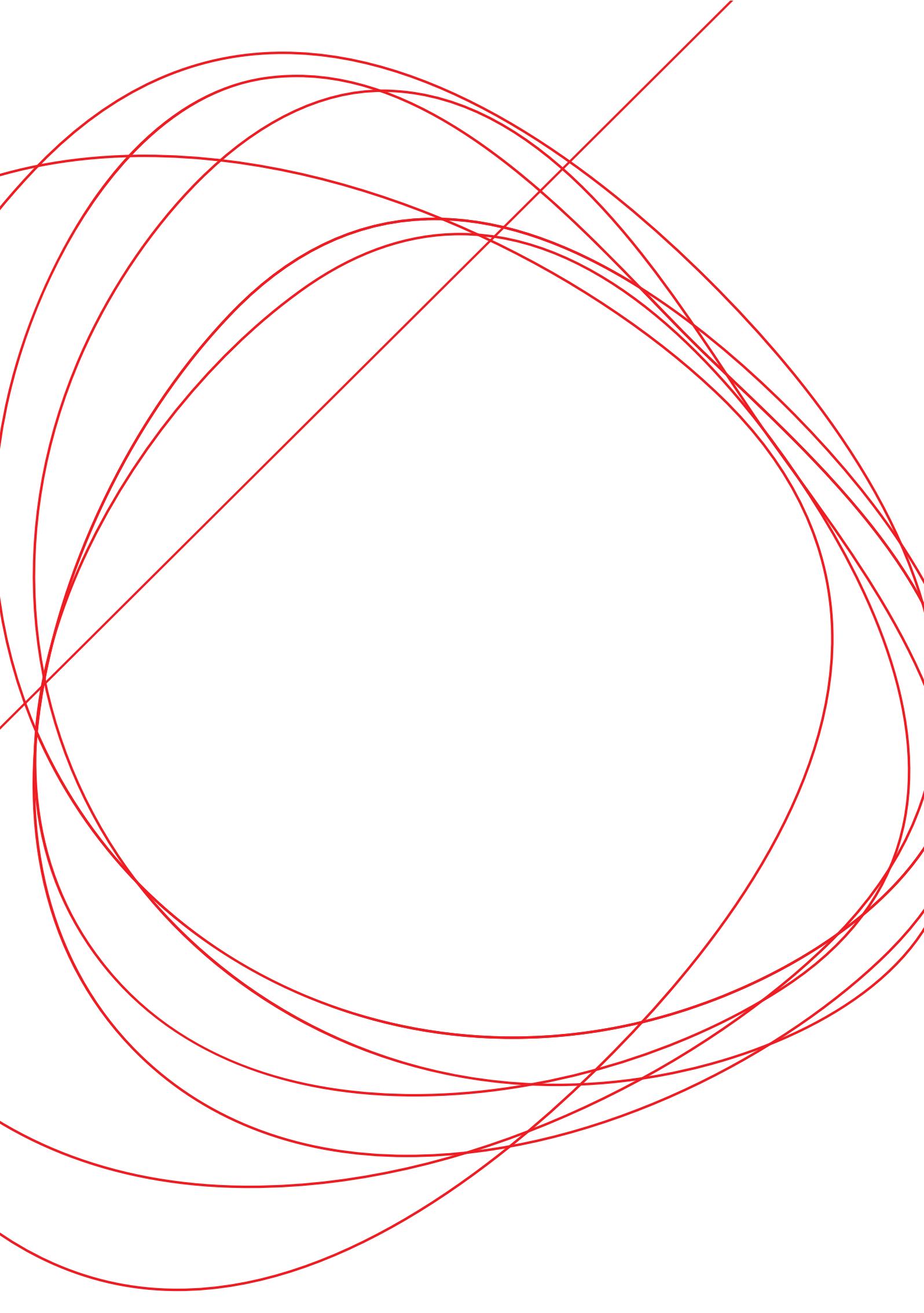
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Programa PAEx - Bolsas de extensão 2012.





# TRACK 6

## THE UEMG TALKS ABOUT ITSELF

### POSTER - DESIGN

Total of selected posters  
on this topic: 12 posters

#### **Centre for studies, theory, research and culture in design (Centro T&C Design)**

——— Dijon De Moraes, Regina Álvares Dias, Lia Krucken and Rosemary Bom Conselho Sales

#### **DREAM:IN UEMG**

——— Lia Krucken (coordination), Adam Colla, Ana Carolina Ribeiro, Anne Oliveira, Antônio Carlos Roque, Caio Lacerda, Fernando Borges, Gilson Rodrigues, Elder Souza, Jonathan Soares, Luís Fernando Tavares, Luiz Henrique Júnior, Luiza Rocha, Rodolfo Cangussu, Vinícius Gomes and Vítor Quinet.

#### **What is D. Incubadora de Empresas e Negócios de Design (D. Incubator of Design Enterprises and Business)**

——— Samantha Cidaley

#### **Measurement system project: design methodology applied to interior management results**

——— Kátia Bastani

#### **Diamantina: the design creating the strategic positioning of the city which is Cultural Heritage of Humanity in Minas Gerais**

——— Isabelle Maluf

#### **Leucotron Telecom: design culture and Identity in the company and products**

——— Fernando Casanova

#### **Taboolarium**

——— Luciana Ruiz Vilhena and Felipe Bretas

#### **Ciranda Design: enterprise in the Creative Economy context**

——— André Mol and Lia Paletta

**Design and crafts: experience in design service for handicrafts in Minas Gerais**

\_\_\_\_\_ André Mol and Lia Paletta

**Artha line in soapstone: design applied to traditional artisanal product**

\_\_\_\_\_ Rodrigo Braga França, Ulisses Neuenschwander and Pedro Henrique Nascimento

**ATS Informática new head office**

\_\_\_\_\_ Emely de Fátima Mendonça Gaspar, Flávia Monique Bolina Pereira and  
Gabriela Helena Peixoto de Souza

**The high luxury emotional consume in the contemporary world**

\_\_\_\_\_ Andréia Salvan Pagnan

TRACK 6  
poster - design

## Centre for studies, theory, research and culture in design (Centro T&C Design)

### Dijon De Moraes

PhD, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ moraesdijon@uol.com.br

### Regina Álvares Dias

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ regina.alvares@gmail.com

### Lia Krucken

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ lia.krucken@gmail.com

### Rosemary Bom Conselho Sales

Doctor, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ rosebcs@gmail.com

The Center T&C Design main purpose is to foster the advancement of design research, including its comprehensive form of cultural and material expression. Therefore we promote the interaction of a group of faculty, students, researchers and scholars in order to develop advanced research related to the theme of “theory, research and culture in design”.

For this reason, since 2006, T&C Design operates in the universe of complex questions inherent to Design and that are also still little decoded. It has also the purpose of being a support tool to the stricto sensu programs in this area of knowledge.

The members of T&C Design includes Prof. Dijon De Moraes; Prof. Regina Álvares; Prof. Lia Krucken; and Prof. Rosemary Bom Conselho, grad and undergrad students of the ED/UEMG, Master Science Candidates and invited researchers from national and international institutions.

Our main research tracks are: 1) Theory and Culture of Design and 2) Design and sustainability.

Our research activities and scientific production can be structured in three focuses:

Knowledge access and sharing: research and development of inter-institutional interactions;

Knowledge development: organization of scientific events; development and implementation of research projects; teaching in undergraduate and graduate courses; advising of dissertations; and educational /academic collaboration with universities in Brazil and abroad;

Knowledge Diffusion: development of scientific publications; publication of dissertations; participation in national and international events; conduction of lectures; courses and workshops in Brazil and abroad.

The web platform of T&C Design can be accessed at: [www.tcdesign.uemg.br](http://www.tcdesign.uemg.br). It was conceived with the purpose of fostering the interaction among researchers and the open access of publications. One of the most important production of T&C Design is the edition of the collection Advanced Studies in Design ( Estudos Avançados em Design ), since 2008, that includes the contribution of relevant experts in the Design area.

## DREAM:IN UEMG

### Lia Krucken

Doctor, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ lia.krucken@gmail.com

### Iara Mol

Specialist, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ iaraamol@gmail.com

Professors and researchers involved: Ana Carolina Ribeiro, Ana Paula Nasta, Daniel Bahia, Elisângela Batista, Fernando Borges, Heleno Polisseni, Marcos Breder, Najla Movutrek, Rachel Montenegro, Romeu Rodrigues.

Undergrad students involved: Adam Colla, Anne Oliveira, Antônio Carlos Roque, Caio Lacerda, Gilson Rodrigues, Elder Souza, Jonathan Soares, Luís Fernando Tavares, Luiz Henrique Júnior, Luiza Rocha, Rodolfo Cangussu, Vinícius Gomes, Vítor Quinet.

Graduate students involved: Group of the Master on Design Management – Universidade do Estado de Minas Gerais

Local supporters: T&C Design, Thinklab

DREAM:IN is an international project with significant local players and action, aiming at creating lasting socio-economic change. The main focus is the application of design thinking in the identification, development and implementation of public policies and new business ideas. The project was conceived by Sonia Manchanda (Idiom, India) and Carlos Teixeira (Parsons New School of Design, New York), as an 'inside-out' process, including methodology and system to change the basis of impact investing and value creation from needs to dreams, from systems to self.

For over three months, 240 students and 20 teachers from six major universities in Brazil (Design Courses at PUC-Rio, da ESPM-São Paulo, UEMG-Belo Horizonte, Unisinos-Porto Alegre, UnB Brasília, UFMA-São Luís), with coordination of the Institute Vivarta (SP) and the Parsons New School of Design, worked together, for the first time ever, to distil the dreams of Brazil.

The partnership of the School of Design at the University of Minas Gerais (UEMG) with the project DREAM: IN was supported by the Center T&C Design and began through the discipline "Territorial Development", taught jointly in Undergraduate Product Design, Graphic Design, Design and Environment Visual Arts. The students faced the challenge of collecting dreams of residents and workers in the city of Belo Horizonte, aiming at identifying the aspirations of the people and their potential as entrepreneurs.

This project is already in progress but there are some important results to be appointed. The initiative has stimulated a great interaction between students and teachers in our school and universities, providing an important opportunity for the development of networks and application of innovative design methods. The course at UEMG was completed with the holding of a meeting that brought together students, professionals, entrepreneurs, experts and big dreamers: the Regional Conclave Dream: In UEMG. The event, held in June 2012, aimed to generate concepts and solutions in sessions of intense ideation, from inspiration and stimuli that dreams brought. Finally, in August 2012, the local team participated in the National Conclave, held in São Paulo, which involved professors from several Brazilian universities and many experts. At this moment, the group of professors and the Vivarta Institute are discussing the lessons learned from this first experience, in order to design possible advances to DREAM:IN Brazil.

## What is D. Incubadora de Empresas e Negócios de Design (D. Incubator of Design Enterprises and Business)

### Samantha Cidaley

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ samanthacidaley@yahoo.com.br

Founded in 2006, as a program of Centro Design Empresa, and supported by Universidade do Estado de Minas Gerais, D. Incubadora de Empresas e Negócios de Design aims to assist development of enterprises whose processes or services are innovative and which activities result from the application of design methods and tools.

What is a pre-incubated enterprise?

It is an enterprise in its organizing phase. In this period the entrepreneurs spend their sources in managing courses and planning the business.

What is an incubated enterprise?

It is an enterprise in its improvement phase. It is the moment when entrepreneurs spend their sources on the development of the business, in the improvement of the business management, including administration, financial, processes and projects managing.

What is a partner enterprise?

It is an enterprise that successfully concluded the incubation period at D. Incubadora and believes in the strength of the institutional relationship in the design market. In a partnership, enterprises and incubator work for achieving the best results.

Our Mission

To build, develop and consolidate successful enterprises which promote and speed design business, according to the needs and opportunities of the market.

Design is around you, increasing competitiveness of companies:

Fashion design

Product Design

Graphic design

Web design

Interior design

## Measurement system project: design methodology applied to interior management results

**Kátia Bastani**

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ katiabastani@gmail.com

Cooperators: Vanessa das Dores Alves Dias, Sâmela Suélen Martins Viana, Samantha Cidaley Moreira, Izabela Soares Machado Guimarães de Abreu, Juliana Gomes Costa, Wesley Canedo, Leonel Del Rey and Viviane Gomes Marçal

### **D. Incubator of Design Enterprises and Business: ELEMENTOS DESIGN DE AMBIENTES**

This research in progress developed from the “Edital 09/2009 from FAPEMIG: Design nas empresas” has as main objective to develop and apply a system capable of measuring the results obtained through the implementation of interior design project solutions. The analysis considered a project drawn from the Interior Design methodology that, after its execution, has obtained performance indicators that allow the results verification. In this sense, it tried to understand the relevance of Interior Design in companies projects and also the importance of the designer role, which acts as promoter of strengthening and innovation in the Design area.

To that, a study case on a company in the pharmaceutical industry was applied. The project was based on the methodology of Design applied to Interior that allowed the characterization of context. Through the Functional Mapping, one of the steps of the methodology, workflow analysis and recommendation of a new sectoring template and layout for the point of sale were obtained, tailored to the demands and needs of the company. After make the sectoring plan, it was developed the layout and perspectives (Pictures 2 and 3) covering the needs raised during the initial stage of the project.

Data and information about the benefits achieved by the implementation of the project were collected by means of a measurement system that allowed data analysis and verification of the statistical significance of this action. The relevance of this research is realized as a contribution to the various agents inserted in the process, highlighting: the Interior Design activity; the company “ELEMENTOS DESIGN DE AMBIENTES”, founder and partner of this action; the research team of this action; the academic institution, UEMG which multiplies the applied knowledge of new professionals formation and the generation of new academic research and the market’s new perspectives regarding interior design activity.

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#### Acknowledgments

Fundação de Amparo à Pesquisa do Estado de Minas Gerais (FAPEMIG) and UEMG.

## Diamantina: the design creating the strategic positioning of the city which is Cultural Heritage of Humanity in Minas Gerais

**Isabelle Maluf**

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ bellemaluf@gmail.com

### D. Incubator of Design Enterprises and Business: QUANTUM DESIGN

The city had tried for long to establish itself in the market as a good historical destiny, but this strategy was not right and the number of tourists in the city was declining. It became necessary to create a new position for this Cultural Heritage of Humanity, in order to make clear the attractions that make it different from other tourist cities of Minas Gerais since the state has a lot of historical destinations.

After several studies, it was found that the main difference of this tourist destination is its musicality. It was necessary to define a name for a new brand for the city to show the different possible experiences being experienced in Diamantina.

The result was “Viva Diamantina.” The name was fortified by its brand identity, bringing the manual typography carved in wood, characteristic of signage the historic city center. The Viva Diamantina brand translates traditional features of happiness in the city, as well as shows the influences of folk arts present in city.

All materials created for the project had the premise of making visible all the details of the visual composition of the city, like the railings of the balconies of old houses, ribbons and decorations from festivals to their flagship lamp with yellow lights, and that together, create a nostalgic atmosphere and homely in the city.

Two other brands were created for the deployment of the brand Viva Diamantina: Vesperata and Diamantina Gourmet. Both brands had the musicality as the main starting point for its development, which is seen in the first letters of each word, which are similar.

The new communication and new brand created to enhance the musicality of the city, has become extremely important to make clear the attributes of this receptive city that offers all there experience unforgettable experiences.

## Leucotron Telecom: design culture and Identity in the company and products

### Fernando Casanova

Graduate student, Redemat and Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ fcasanova@gmail.com

### D. Incubator of Design Enterprises and Business: QUANTUM DESIGN

Leucotron Telecom is a supplier of technology solutions for corporate communication in the valley of electronics in Santa Rita do Sapucaí - MG. Dynamic and technological company indicated consecutively among the 100 best companies to work for in Brazil.

Always keeping up with the market needs, the company is constantly evolving its products in relation to technology, but their products remained unchanged aesthetically to the market for long time.

The market and its sales representatives indicated that the products were outdated and uncompetitive for a set of consumers eager for news. Consumers who recognize and value innovation and technology.

Design is not an unknown word in Leucotron. In the 80's and 90's the company has invested heavily in design solutions, but for a long time the relationship between design and technology remained in the background. Productivity was the word of time.

Recently in 2009, Quantum Design and Leucotron Telecom met. Right now the company rediscovered the design and not by chance, but by necessity. Needed to revitalize the traditional PABX line.

Together, more than new products developed a new positioning for the product family and a new identity for the Leucotron products. Dynamic, contemporary, strong and able to represent the weight and importance of the name Leucotron.

The new products, the first family's were launched in Futurecom 2010. Largest and most qualified event of the communications industry in Latin America. They have since become a huge sales success for the company, and more than that a new experience, a new moment of reunion with the design. The results and the work became Leucotron and Quantum closer partners.

The proximity between the companies and the good work dynamic results in the identification of new opportunities all the time to improve and become competitive the other company's products. Quantum Design is now the company responsible for the design of Leucotron. Responsible for translating in its family of products, the competitive aspects of the brand, its relevance, its values and needs of consumers and users.

## Taboolarium

### Luciana Ruiz Vilhena

Designer, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ blaazdesign@gmail.com

### Felipe Bretas

Designer, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ blaazdesign@gmail.com

## D. Incubator of Design Enterprises and Business: BLAAZ DESIGN

Taboolarium is a Blaaz Design's project. Its name was inspired by the word "tabulário", early Chinese printing technique.

Taboolarium is a brand of women's clothing that is inspired by the art and design. Its products have a unique surface designs made in digital printing. The authors brought to the mark a higher understanding and analysis of fashion and textile trends as well as placement graphics. Their prints vary in style from paints and illustrations to digital design and photograph.

Marketing is done through information technology and communication, especially social networks and sales channels over the Internet. It is a way that the company has used to be closer to the consumer and to meet their needs.

## Ciranda Design: enterprise in the Creative Economy context

### André Mol

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
——— andre@gabbodesign.com.br

### Lia Paletta

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
——— lia.paletta@gmail.com

## D. Incubator of Design Enterprises and Business: GABBO DESIGN

Currently it stands out in the market the opening that has been given to the design applied to the strategic level, and is now a crucial reference for managers in various projects. The strategic design is presented today as an important interlocutor of sustainability and innovation in different economic, social and cultural approaches.

In this scenario, a factor of increasing emphasis on the performance of designers and design offices, is the reorganization of its conventional work structure, based on the provision of services where, generally, the customer demands the development of a project according to a specific design area, such as graphic, product, fashion or interior design.

This attitude meets the assumptions of the Creative Sectors, pointed in the definition of the Creative Economy given by the MINISTRY OF CULTURE (2011. P.22) as “those whose productive activities are the main proceedings as a creative act of symbolic value generator, central of price formation, and resulting in the production of cultural and economic wealth.” This favors the developments of design decisively to this change of approach, opening new paths for the designer in sectors and activities that are broader than the provision of services. Products and services developed from this perspective enables that innovative solutions to be marketed in various segments, because it does not depend on the mobilization of third parties (trade industries or companies) to adapt or even perceive a need to redesign their relationship with the consumer.

Within this scenario was created the firm Ciranda Design from the market opportunity that allows the designer to produce their own products. Ciranda Design is a brand that sells products produced in acrylic there have a friendly and unusual approach. The products offered are fashion accessories, and stationery products like notebooks and bookmarks. On the market since 2011 the brand has received great response from the public for showing acrylic applications in different and unconventional products. But this differential was reached because it is an initiative of designers, without needing to wait for an external client demand.

## Design and crafts: experience in design service for handicrafts in Minas Gerais

### André Mol

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
——— andre@gabbodesign.com.br

### Lia Paletta

Graduate student, Universidade do Estado de Minas Gerais, Brazil  
——— lia.paletta@gmail.com

### D. Incubator of Design Enterprises and Business: GABBO DESIGN

Gabbo Design is a company that offers design services uniting the areas of graphic and product design. Present in the market since 2010, a significant area of activity of the firm is the work with craft projects.

Working in consulting for the Support Service for Micro and Small Enterprises (Sebrae) it was possible to reach contact with the most diverse demands from handicrafts associations and rural producers in several cities of the state of Minas Gerais.

Through the acquired experience with already more than two years on the market it was possible to observe that the development of design projects like branding, packaging and even the development related to products became a huge differential in this sector.

Below it is shown some examples of projects that helped handicraft groups and rural producers to excel at a national level in an industry where competition does not present any kind of differentiation or even concern for investments in design.

These are examples of three brands developed by Gabbo Design. In the left, it was developed the name and the visual identity created for the strawberry producer collective of the Alfredo Vasconcelos city. The new brand and package increased significantly in sales and prices of the products. The brands in the right were developed for groups of artisans from cities Conceição das Alagoas and Grão Mogol. Both projects represent a major improvement in communication and image of the associations.

## Artha line in soapstone: design applied to traditional artisanal product

### Rodrigo Braga França

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ contato@notusdesign.com

### Ulisses Neuenschwander

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ contato@notusdesign.com

### Pedro Henrique Nascimento

Graduate student, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ phpnascimento@gmail.com

## D. Incubator of Design Enterprises and Business: NOTUS DESIGN

The project consisted in a new line of kitchen products for the Artha company, an enterprise with expertise in the manufacture of products made from soapstone scraps and leftover deposits of steatite, waste of large mining companies in the region. The project was carried out through the program of improvement and adjustment of the national product to foreign markets, conducted by Rede Mineira de Extensão Tecnológica part of the Brazilian System of Technology (SIBRATEC).

The project included extensive research where the team of designers immersed into the world of soapstone and gastronomy, there were conducted interviews with the Nutritionist, Food Engineer, chef and applied questionnaire with multiple consumers for public interest and market research.

Another key point was the research technique to achieve an innovative solution for fixing the handles of stainless steel chosen. The solution, unprecedented in the market, breaks the paradigm of traditional copper rings and is already in the patent process. The owner of Artha, Stefano Mimiza, expressed his satisfaction with the project conducted by Notus Design and supported by Sibratec: "The project fully met the expectations of the company, after the suitability of the products, samples were exposed to one of the largest fairs in Italy, where they had great acceptance both by our distributor as by the public and we are currently producing the first shipment of new products".

Besides the acceptance in the international market, the innovative solution for fixing, also allowed Artha company to introduce new models on the internal market, with different types of handles, expanding the company's business. For the designers Rodrigo Braga França, Ulisses Neuenschwander and Pedro Henrique Nascimento who participated in the whole process, the project had several interesting points as they report: "It was a very interesting and challenging project because we work with a material that already had extremely traditional paradigms and with same product models that are repeated for decades. The introduction of people from various areas throughout the project design and methodology were essential to get the result we wanted, products that combine the artisanal and industrial aspect, the authenticity of soapstone and the estimated value of products related to the pleasurable ritual of gastronomy".

## ATS Informática new head office

### **Emely de Fátima Mendonça Gaspar**

Designer, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ emely@sensidesign.com.br

### **Flávia Monique Bolina Pereira**

Designer, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ flavia@sensidesign.com.br

### **Gabriela Helena Peixoto de Souza**

Designer, Universidade do Estado de Minas Gerais, Brazil  
\_\_\_\_\_ gabriela@sensidesign.com.br

## D. Incubator of Design Enterprises and Business: SENSI DESIGN

The project carried out for the “ATS Informática” new head office was a result of processes developed by Sensi Design company. Usually, for the interior design is hard to find a model or a restricted methodology with low flexibility, but in this case it is possible to follow this organization in most of the corporative interiors.

For the elaboration of this process it was necessary to add two steps to the design’s common briefing methodology: Understanding Macro Labour CMaL and Understanding Micro Labour CmiL. At first, it was essential to understand the work field of the company, how was the relation with its competitors, which is the hierarchy within the company and which sectors would fit the new head office, to that was named CMaL. Later, it was essential to have an individual understanding of every department and how they were related, to that was named the CmiL.

With the addition of steps CMaL and CmiL it was possible to identify that the emphasis in management culture prioritized by the company and the image of commitment and modernity that it desired to strengthen, should be the base. The main requirement was that the interior design transmitted the values of reliability and excellence guaranteed in service provided along with the characteristics of caring and guiding companies served by it. It was necessary to communicate not only to customers, but also to employees and business partners.

Thus the project conception has reached the following assumptions: establishing wide rooms that avail effectively the view and the daylighting; integration between the company sectors that communicate more with each other, using few private rooms; sectorization, moving away the interiors whose activity produces noise apart from those that in which the concentration are necessary; boosting the overall flow through two entrances and flow of visitors that go to training rooms, meeting room and board do not enter the sectors.

The addition of these steps in the common process of design methodology was paramount for success should be obtained in a project of such complexity.

## Interior design for fashion

### Amanda Silveira

Designer, Universidade do Estado de Minas Gerais, Brazil  
 \_\_\_\_\_ amandadesign@yahoo.com.br

### Fernanda Lyrio

Designer, Universidade do Estado de Minas Gerais, Brazil  
 \_\_\_\_\_ fernandalyriou@gmail.com

## D. Incubator of Design Enterprises and Business: VIÉS AMBIENTES PARA MODA

VIÉS is an interior design firm that develops innovative e functional solutions considering the values, principles and image of the enterprises and the peculiarities of the public and users.

The firm objective is on the planning of sales places, events and production spaces directed to the fashion focus, giving support for the Brazilian micro and small enterprises in fashion business. The differential is the development of conceptual, commercial and productive interior designs, highlighting the specific potential of each space.

VIÉS develops projects for storefronts, stores, showrooms, booths, fashion shows, and clothing factories.

### Stores/showrooms

The place of sales is where there are the direct contact between consumers, products and the brand. In this approach, the interior design must visually please the user, contributing for the brands loyalty and recommendation. The space must communicate the company's values, generating sensations associated to it. Viés prioritizes the interior design functionality as well as the valuation of products. The showcase plays the role of exposing the products objectively, but must also communicate the brands values, attract customers into the store and encourage the products consumption. The exhibition should ensure effective access and visualization of the products, so that it becomes a potentiator of sales. Viés prioritizes the valorization of the collections themes and the language unification of the brand in the frontstore.

### Events (Booths/fashion shows)

The space for the promotion of event must Express the brands image concept, being the company's communication portal with the market and its public. Must also contribute with the brands position in the market and with the values perceived by the clients. Viés prioritizes the values perceived by the clients and the brand's image.

### Production spaces

The production space conditions contributes for the performances of activities, productivity potentiation and the profitability. The space's optimization is one of the factors responsible for the quality of the tasks. Viés prioritizes the tasks productivity and quality. Viés objective is to proportionate to its clients competitive differentials, optimizing the organizational structures, reinforcing the brands characteristics and contributing to the market's company's prospection.

## The high luxury emotional consume in the contemporary world

**Andréia Salvan Pagnan**

Graduate, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_ andreaia@mapoula.com.br

### D. Incubator of Design Enterprises and Business: MAPOULA

An analysis of luxury in the contemporary world requires an understanding of their origin. As much as we see it through the eyes of history as responsible for the corruption of morals and the fall of cities, it is important to understand that luxury did not begin with the manufacture of goods of high price. According to Lipovetsky (2003), “before being a mark of material civilization, the luxury was a phenomenon of culture, a mindset that can take on a characteristic of human-social asserting its power of transcendence, not his animality.”

Since the late nineteenth and early twentieth century, succeed professionally and become famous result was the creation of unique models, new and unique. As an example we can mention the couturier Charles Worth, Cartier, Hermès and Lalique. From the second half of the twentieth century there was a very rapid development of consumption and improved modes and lifestyles. The media have multiplied, brought the “trends”, promotional sales and credit becoming increasingly accessible to purchase these products. But the universe of luxury retained its seductive pleasure and even with attempts desmistificantes an evolving market. As main attributes to be highlighted in luxury products are: quality of raw material noble, handcrafted manufacturing processes and sophisticated packaging, which are highly valued by consumers. These attributes apply not only to heavy luxury category (watches and jewelery) and luxury light (fashion and clothing), but also the experiences. In the eyes of most, the luxury extends to beverages, food, travel, hotels, spas, technology and cars. Figure 1 illustrates a market survey conducted by IPSOS - commissioned by BCG (Boston Consulting Group) - based on 7496 individuals who are in the top half of luxury consumers in seven developed countries which represent 75% of global market luxury.

The study shows that the luxury category “traditional” is a small part of the global luxury market, becoming the most distributed among articles related to experiences like travel, drinks, food and technology.

The emotional choice is crucial to purchase a premium product, is that the consumer does not always have a need to acquire it. The attributes of a product of high luxury as noble raw materials, care typical of artisan and sophisticated packaging, are the main factors that influence consumer decision which is based on the desire, the dream, the desire to belong to a higher social class or just improve your self-esteem. Consumers of these products combine value the history of the brand, thus seeking to social differentiation through it. True luxury has different meanings for different people, but for most of them luxury has a connotation of rarity, quality and refinement.

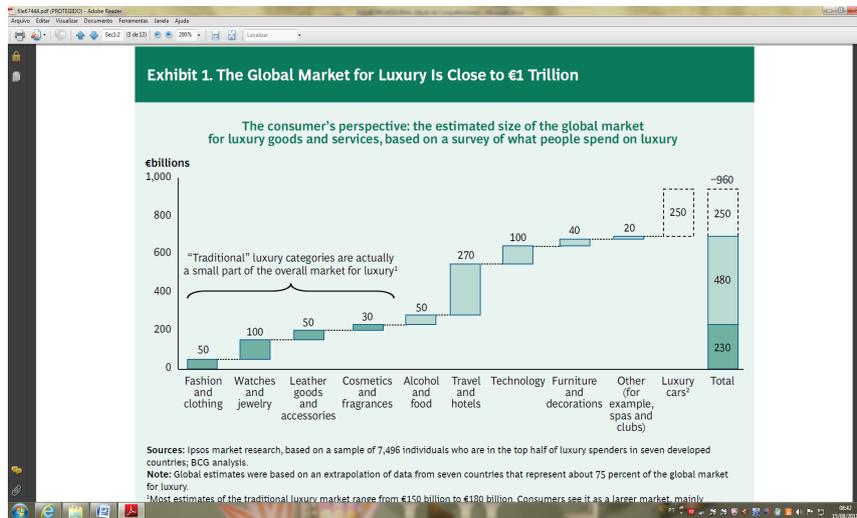


Figura 1: Global luxury market – BCG (Boston Consulting Group)

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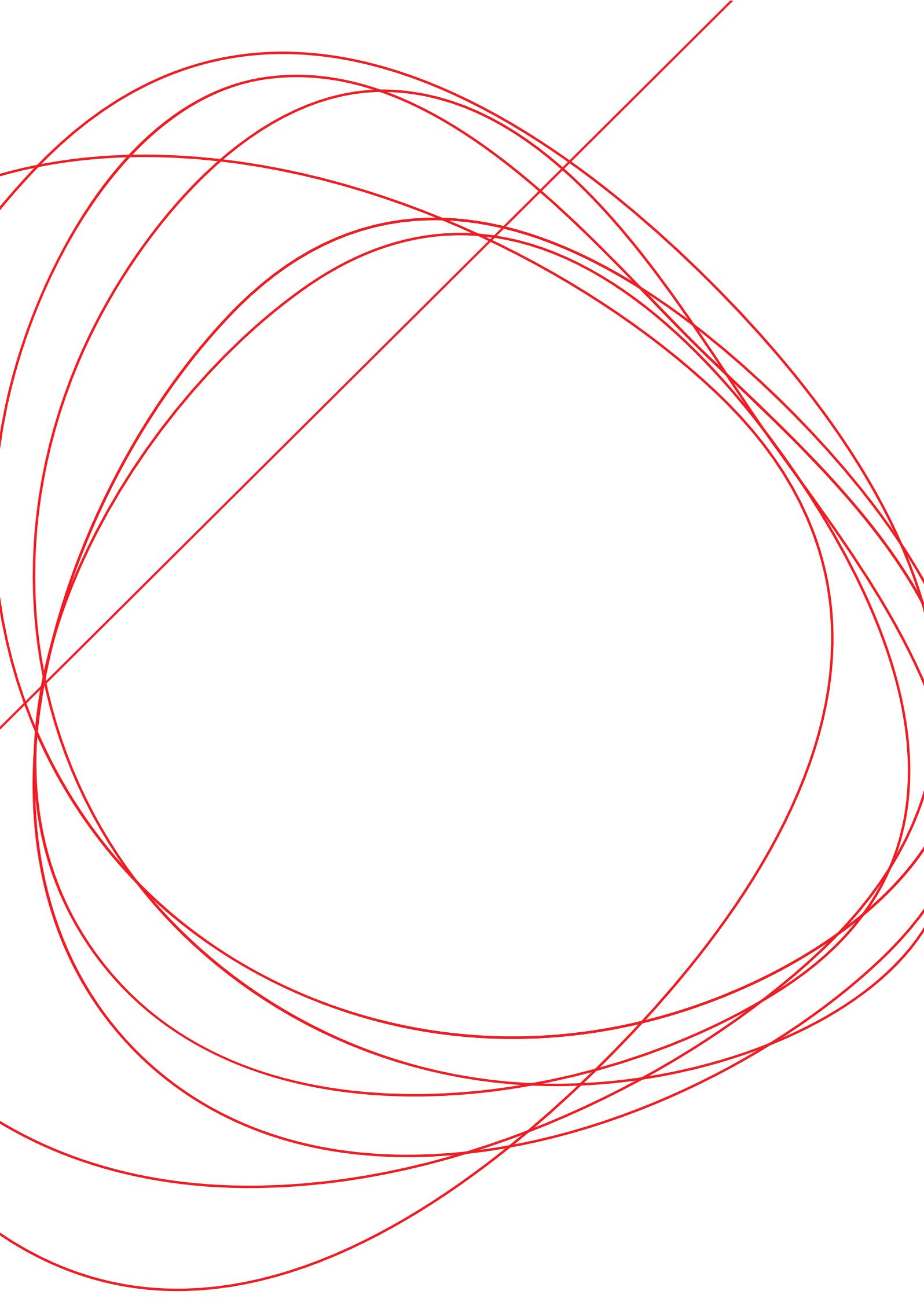
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# GUEST PAPERS

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**New proposal for humanist designers: making the real world more like a games**

——— Sebastiana Lana and Ricardo Triska

**Building up a culture of innovation within a wide array of regional diversity of living models**

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**Communication design for the dignity of the woman figure: two research studies between design and gender cultures**

——— Giovanni Baule, Valeria Bucchetti, Elena Caratti, Researcher and Umberto Tolino

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——— Andreas Sicklinger

**Design as innovation technology for creating value in emerging markets**

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**A human approach to smart cities: the peripheria project as a case of citizen-centred design**

——— Alessandro Deserti and Francesca Rizzo



# GUEST PAPERS

## New proposal for humanist designers: making the real world more like a games

### Sebastiana Lana

PhD, Universidade do Estado de Minas Gerais, Brazil

\_\_\_\_\_ sebastiana.lana@gmail.com

### Ricardo Triska

Doctor, Universidade Federal de Santa Catarina, Brazil

\_\_\_\_\_ ricardotriska@posdesign.ufsc.br

Technology helped a considerable portion the population to overcome harsh conditions. However, we are increasingly aware of the downside of the revolution that has transformed the way we live, work, or have fun.

The boom of cheap market value products created a culture based on excessive consumption and, therefore, and exponential amount of waste. The industrious revolution left us vulnerable to man-made disasters. All advances in life sciences, pharmaceutical, biotechnology increased our life expectancy but probably did not exclude us from adversity.

We need new products that maintain equilibrium between the needs of individuals and of the society as a whole. This proposal should not be centered on the individual but on human nature. Ideas that deal with global challenges such as poverty, health and education. Projects which integrate the desirable, the technological and economical viability, from the human point of view, without excluding the design and aesthetics from the artistic point of view. It should be intuitive, recognize patterns and develop ideas that have emotional as well as functional meaning (1).

People express themselves in an infinite range of words and symbols. Add that with 20 years of virtual and online experience and the conclusion is obvious: our brains have evolved to accept virtual interactions as if it were real. The relationship between man and machine is very similar to the relationship of men among them (2). Therefore humans personify computers as human beings.

Future possibilities lie around developing software that generates solutions out of gratification, like in games. This paper deals with the possibility of designing games that can solve real world problems (3). There are people developing situations which empowers the common man to solve real world problems through games. Examples can be seen in softwares where the future of energy, health, security and social safety is played upon. People are invited to learn skills like local insight, sustainability, knowledge networking, vision and resourcefulness and to try to create their own solutions to save the world. All of that in an fantasy fun environment, designed to relief the player from the pressure of the 'real world'.

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## Building up a culture of innovation within a wide array of regional diversity of living models

### George Teodorescu

Prof. Dipl.-Ing. George Teodorescu, Head of Integral Innovation, SAdBK- Stuttgart, Campus Waiblingen, Germany

— george\_teodorescu@yahoo.de

### MISSION

Educating inventors with a large variety of educational and cultural backgrounds. Advising and training the creativity and the skills of solving problems originally, with local resources and talent on habitat level. Increasing the public acceptance of newness and the public involvement in the process of innovation.

### INNOVATION SEASONS, prosperity vs. innovation

Real innovation means serious change, change means risk, the risk of making mistakes. Many people, when they are feeling fine, are afraid of making mistakes, endangering as such the status quo.

They prefer then the small changes, formal interventions or performance improvements. It is a time for formal design, which gets celebrated as innovation.

The established solutions multiply in such prosperous times and spread out increasingly.

Many enjoy ignoring, that they are neither universal nor eternal solutions.

After too long any accepted solution turns in a problem bigger than that one, which it has been created to solve.

The attitude of avoiding real innovation induces as such a new crisis and the carousel turns around once more. The need for fresh concepts and the readiness to risk grow. A new pioneer era starts.

This cyclicity is a phenomenon on all levels from the society as well as in a company. It is a general behavior template, which generates crisis, as the prosperity is anticyclic to innovation.

Crisis times are innovation times, prosperity ones are used for enjoying, beautifying and perfecting the existing, the former innovation gets worn out.

How to break open this devil's circle?

First of all there is a matter of understanding the body of Innovation and secondly to change the vicious attitude upon it.

INNOVATION SPACE, understanding innovation

There is a general confusion, when it comes to talking about innovation.

Often minimal changes or formal interventions are declared innovation. The terms: approach and concept are used as foggy words and there is no perception of any relationship among them.

Understanding innovation as an homogenous and structured space, with: approaches, concepts and solutions as coordinates, instead as a mysterious cloud of random inspiration helps developing a strategy for generating and harvesting seminal ideas and original solutions.

Such a homogenous model allows a better perception of the problem and a transparent navigation along the axles and in the defined fields. It sets the actual creative act in the entire context of the innovation space. It is revealing a wide potential of alternatives along the activity axle and in the depth of the other coordinates.

The innovator works shifting between the axles: Approaches, Concepts and Solutions, enjoying the transparence of the innovation space, which is suggesting and guiding him to further options in the related categories or even beyond them to unexpected insights.

The innovator can navigate safely in the inspiring space of ideas and the client can determinate the magnitude and context extent of change

The quality of the result and its consequences are revealed by the context of potential alternatives.

The Innovation Space is an innovation tool and a control instrument for creative output, coherence of resulted solutions. It signals worn out concepts and invites the need of change.

The need of change is the result of exhausting the potential of a concept by extensively using under competition pressure.

The Approach Axle relates the Innovation Space with the network of desire-strings, pin pointing the topic and his actuality in the larger context of the contemporary expectation outline.

The Innovation space is a structure for the body of innovation, making it understandable and transparent.

## ASPECTS OF INNOVATION

The Innovation Space is coherent and homogenous. The hierarchy of his categories and all their subsequent aspects follow an identical fractal pattern.

From Approach to Concept, down to Solution and eventually to product and sales strategy there is no hiatus but a consequently pattern of change.

This statement implies, that the acceptance and success are conditioned by a consequent chain of changes along the entire cascade of innovation aspects.

The success of innovation is hence the result of a coordinated creative effort at each following step down to the acceptance by the user.

Many brilliant ideas went off, because some of the following steps have lacked the creativity effort. A routine implementation step might annihilate any brilliant creative input.

The aspects of Innovation make also transparent the need for a Think Tank activity before the predevelopment and promote the activity on the Approach Axle as essential for the entire following creative effort.

The acceptance of innovation means winning a hurdle race, by overcoming the cascade of thresholds between creativity inhibition and public skepticism and for sure breaking through a wall of misunderstanding and prejudice.

#### ATTITUDE UPON INNOVATION

We need a culture of innovation, where the creativity is the highest merit and the originality a virtue.

In such a culture the inventor is the hero, not the criminal and the media are celebrating the newness, not the scandal.

The competition occurs between concepts and approaches, not a price race among similar solutions illustrating an identical concept.

In order to build such a culture they are some steps required:

- Educating Inventors on a Master Level:
- Converging bachelor competences of: Engineering, Natural Sciences, Architecture and Design into an International School of Innovation.
- Involving the school children in education of Innovation.
- Building Innovation Alliances
- Clustering the Schools of Innovation with companies and institutions for a steady exchange between the economic and social reality and the think tank.
- Endorsing and inspiring local talents in maintaining local strategies of living by refreshing and developing them with new concepts and approaches, based on local resources.

- The diversity of solutions and approaches are the strongest asset of humanity, a precious portfolio of living models as a result of creating a specific living model for every met context of resources, climate and landscape.
- Involving the public in the innovation process

And last not least:

Building a everyone's attitude, for asking himself: what did I create today? instead of what did I buy?

Living with existing paradigms, which have been invented generations ago, the public developed a routine of owning and using these items in various forms and performances. They became a second nature, as the producing companies scarcely introduced any revolutionary concepts for avoiding the conceptual risk. The innovation was replaced by low-risk strategies, like updating existing concepts eventually boosted by easy form changes.

This practice made the public acquainted and saturated, addicted to forms, but reluctant to real newness, inducing a mentality of consuming instead of experimenting.

The natural spirit of innovation of the humanity became overlaid by the habit of the largely and somehow easily available portfolio of well known products.

We are experiencing an urgent need for endorsing a fresh mind set and creative attitude in the business and public, fostering the innovation as the main driving force of progress and sustainable life.

## Communication design for the dignity of the woman figure: two research studies between design and gender cultures

### **Giovanni Baule**

Ordinary Professor, Politecnico di Milano, INDACO Dep., Italy  
\_\_\_\_\_ giovanni.baule@polimi.it

### **Valeria Bucchetti**

Associate Professor, Politecnico di Milano, I INDACO Dep., Italy  
\_\_\_\_\_ valeria.bucchetti@polimi.it

### **Elena Caratti**

Researcher, Politecnico di Milano, INDACO Dep., Italy  
\_\_\_\_\_ elena.caratti@polimi.it

### **Umberto Tolino**

Researcher, Politecnico di Milano, INDACO Dep., Italy  
\_\_\_\_\_ umberto.tolino@polimi.it

The paper addresses the issue of representation of women through the media, it is set in a research domain that focuses on the dignity of the female figure and her defence, and that is finalized to reflect on the role that communication design may take to oppose widespread stereotypical models and to support a process of social criticism by directing people to a more aware interpretation of the reality.

The focus is on the responsibility that communication design can carry out in two ways.

Firstly through their own power of self-reflection which aims at claiming joint responsibility in the production of a stream of images painting our daily life, through reflection on the use of their own expressive registers, their rhetorical models and the tools that the theories of direction and staging provide designers with.

This is the contribution that the visual Cultures can offer in terms of criticism and complex methodological approaches which would support those historically developed by the Social Sciences and represented by Gender Studies. Secondly through their own design work, through a communication program geared towards the production of sensitizing instances and the elaboration of artifacts for their diffusion.

At the core of this research effort lies the issue of women stereotypes in society, achieved through forms of representation which distort their roles in public and private life. In this direction we present two design research works - developed in the form of workshops - which were intended to investigate the socially determined relationship between the phenomenon of stereotyping of

women's identity and the system of production, distribution and consumption of images through analogical and digital media.

In the first case, the attention was given to the definition of analogical-digital catalogues for a gender culture and, in particular, to the process of deconstruction of the most common female stereotypes.

Starting from a process taxonomization of signs (icons, indexes, symbols) that were identified in the media, the goal was the experimentation of a new dimension of communication in the forms of representation of woman identity and the construction of catalogues of syntheses.

In the second workshop the issues related to the representation of women in the analogical and digital media, were put at the core of the project to develop new lines of communication.

Through the creation of static and animated posters (kinetic posters), new models of female representation have been explored upsetting the identified stereotypes in order to promote the dignity of the woman figure.

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## Perspectives in design education in Egypt: the designer's profile as cultural mediator

**Andreas Sicklinger**

Professor, Faculty of Applied Sciences and Arts, German University in Cairo – GUC, Egypt  
—— sicklinger.andreas@guc.edu.eg

After the Arabic spring in 2011 the Faculty of Applied Science and Art of the German University in Cairo, the only faculty in Egypt which teaches today design in the three majors Product, Graphic and Media, has seen among the students' outcomes an important increase of specific interest and research topics related to social and cultural issues like human rights, gender equality and ecological awareness in the own country. Once opened the path for a more critic way to discuss the society's issues, the content of the taught design education showed efficiently the opportunities which can be offered in this region to create a specific designer profile: confrontation with and insertion in the existing cultural context of the country and the whole Arabic region. This is particularly interesting as it is an international oriented university, and its students are mainly part of the upper social class, considering this as a apparently more or less complete isolation from other social classes. A students' workshop in April 2012 with two small glass manufacturer laboratories in the poor areas of Cairo could give significant evidence to these crucial points of the product design education in Egypt, contemporarily to be compared to other workshop activities like the one with the jewel company Azza Fahmy in Upper Egypt. In the already existing main stream, where the profile of the designer is a link between traditional craftsmanship and innovation through design technology, more complex issues during the design education program has to be faced. Relating to Humanity Studies, design education needs to filter many aspects inside the specific cultural content of the Arabic world: starting from Islamic patterns and right to left reading calligraphy, human interaction and psychology of perception are partially inverted and create new opportunities of design interpretation. This contrast to western understanding and perception is intensified by the already mentioned difference of social class of the design students and craftsmanship. The paper aims to illustrate the necessity of increasing the study curriculum by application of Humanity Studies such as sociology and psychology, which should be used to integrate education in an applied form: through case studies will be shown the idea of how becoming designer in Egypt, on the one side as cultural mediator and on the other side as expert of applicable technologies.

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## Design as innovation technology for creating value in emerging markets

### Carlos Teixeira

Associate Professor , Parsons The New School for Design, US  
\_\_\_\_\_ teixeirc@newschool.edu

### Bridget Sheerin

Graduate Student, Parsons The New School for Design, US  
\_\_\_\_\_ sheeb093@newschool.edu

### Subodh Divekar

Graduate Student, Parsons The New School for Design, US  
\_\_\_\_\_ dives229@newschool.edu

Emerging markets, such as India and Brazil, are transforming at a rapid pace and scale. In order to manage the diversity and depth of the massive needs of such landscapes, nearly all sectors require innovation. Design as “innovation technology” creates the space and flexibility needed to address the dynamic needs of the billions demanding goods and services.

Dream:IN is a design process and method that sources inspiration from the dreams of individuals and arms innovative entrepreneurs with sustainable business and social ventures. Dream:In provides the process, platform, and links for dreams to evolve into reality; guided by the best global minds, propelled by networks and directed ultimately towards realization.

The methodology consists of three phases: the Dream Phase, the Believe Phase, and the Realise Phase. The objective of the Dream Phase is to target and collect deep meaningful dreams. Three individuals make up the dream catching team. The Spotter who identifies specific people, as per guidelines, initiates and conducts an interview. The Framer photographs the dreamer and captures motion and audio footage. Finally, the writer notes insights from the dreamer and therefore, the essence of every interaction. The dreams are funneled into an online open source portal, where they are edited and analyzed by the dream-scaping team.

The Believe Phase, consisting of the Conclave + Investment, narrows down the dream selection. Through a series of design activities over two to four days, the dreams are then carefully analyzed and deconstructed by the best minds in policy, enterprise, funding streams, and most significantly, in design. Investors, designers, business experts and many more come together to design sustainable social and business ventures out of the dreams. A plan is then created to invest and support entrepreneurs to start fulfilling their dreams. The Realise Phase: Projects + Mentoring, is the initiation of the start up and the development to reach a sustainable level.

DREAM:IN catalyses change from within communities by enabling entrepreneurs to actualize ventures that are good for people, good for the environment, and good for the economy. This process takes humanitarian, ethnographic and sociological work to a new level by adding design and business.

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## The human approach to smart cities: the periphèria project as a case of citizen centred design

### Alessandro Deserti

Professor, Politecnico di Milano, INDACO Dep., Italy  
\_\_\_\_\_ [alessandro.deserti@polimi.it](mailto:alessandro.deserti@polimi.it)

### Francesca Rizzo

PhD, Politecnico di Milano, INDACO Dep., Italy  
\_\_\_\_\_ [francesca.rizzo@polimi.it](mailto:francesca.rizzo@polimi.it)

Rather than just focusing on the installation and control of network hardware, city governments, technology companies and their urban-planning advisers can exploit a more ground-up approach to creating smarter cities in which people become the agents of change (C. Ratti, TED 2011).

Many cities are recently developing “Smart” agendas, many of which managed as a strategic selection from among a range of ICT infrastructures and equipment offered by the technology industry and/or being discovered by observing other cities. Yet is ICT infrastructure a key condition for smart innovation? Do heavily “wired” environments and services match the concrete needs of people in real urban places? Is the technology driven approach to urban innovation the best way to develop the smart agendas?

A different, more human-oriented perspective is slowly emerging, also inspired by the Territorial Living Lab approach, which identifies citizens as the key agents of change in a “smart path” towards innovation. People in cities, from within their specific urban spaces, can be the “authors” of a new city smartness in which technologies can be seen as innovation enabling infrastructures more than innovation drivers. In this sense, “smart” (perhaps “wise”?) is a city that learns how to self-organize its smartness; it is aware of its rich capital of people able to shift resources back and forth from cyberspace to “cityspace”; it is aware that citizens are not only “intelligent” but also accessible and able to make their city a place with an infinite variety of choices. In such a smart city people are the engines of innovation. How can cities develop their smart agendas by empowering citizens as their best resource? What urban governance is possible or necessary in a citizen-driven smart city? How can cities rely on people to manage their paths towards smartness? How can cities identify their infrastructure needs?

This paper aims at exploring the human-driven perspective of urban smartness by discussing the results of the first year of development of Periphèria.

Periphèria is a European Project that aims to experiment with the concept of open innovation in

public sector as the most promising approach to implement smart cities. The vision of the Periphèria project is to implement an Open Service Convergence Platform for the provision of Internet and FI enabled public services in and across networks of Peripheral Cities in Europe. This will contribute to the development of economically, socially, environmentally and culturally sustainable innovation ecosystems, ultimately accelerating the development of a Smart Peripheral Cities model that takes specific advantage of the peculiar assets of these territories to engender collective creativity and social innovation.

This article describes the approach developed in Peripheria project to introduce open innovation platform in complex urban environments with the aim to engage citizens in designing new services to support new and more sustainable behaviours and lifestyle through larger (Manzini & Rizzo, 2012; Manzini & Rizzo, 2011; Concilio, 2010).

In order to boost this process the Periphèria Platform incorporates both government Commissioned and citizen driven Community Services. The platform specified defines three main types of spaces:

Challenge and Ideas Spaces where Periphèria Challenges - open calls for project ideas for sustainable Smart City services - can be launched, discussed, and resourced and ideas put forth for addressing those challenges;

Project Co-Design Spaces where collaborative groups of citizens and businesses in specific localities, together with city representatives and ICT experts, develop Smart City Projects which can be linked to one or more challenges using Future Internet technologies;

Technology Co-Design Spaces where ICT experts (ranging from individual coders to multinationals) describe technology components, register them in the "Toybox" and work together with users of all types to co-design their adaptation and integration into one or more Smart City Projects.

The peculiarity of this approach relies on two main pillars:

the consideration of the fact that when people are involved in solving their problems they can be enrolled in complex and long co-design processes that can bring to the development of smart communities (as shown for example by Leadbeater in 2008);

the observation that new participative technologies may help people to participate as well as may inspire new and unexpected services solutions that are capable to solve citizens main problems and, at the same time, to boost the process of new services and solutions that can give an answer to the need of the market to move towards innovations that are sustainable and desirable.

Challenges are expected to become the booster of larger participatory design activities in the arenas and to lead to a continuous innovation process situated together with people and technology in the contexts where people face problems and express needs.

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