

# Cumulus Conference Proceedings Wuxi 2018

Hosted by:

Cumulus Association / Jiangnan University

Diffused  
Transition  
Design Opportunities



**Cumulus Conference Proceedings Wuxi 2018**  
***Diffused Transition & Design Opportunities***

31st October-3rd November, Wuxi, China

**Editors**

Zhang Linghao, Lam Yanyan, Xiao Dongjuan, Gong Miaosen, Shi Di

**Art Director & Designer**

Zhu Qiyang

**Layout Designer**

Yan Chenxi and Song Yuyin

School of Design, Jiangnan University  
No.1800, Lihu Avenue, Wuxi, 214122 China  
<http://sodcn.jiangnan.edu.cn>

Cumulus International Association of Universities and Colleges of Art, Design and  
Media  
Aalto University  
School of Arts, Design and Architecture PO Box 31000, FI-00076 Aalto  
Finland  
E: [cumulus@taik.fi](mailto:cumulus@taik.fi)  
W: [www.cumulusassociation.org](http://www.cumulusassociation.org)

© Copyright: School of Design Jiangnan University, Aalto University School of Arts,  
Design and Architecture and the Authors

All content remains the property of authors, editors and institutes ISBN:

978-952-60-0092-3

Printed in Wuxi, China. October 2018

Printed by Wuxi Huguang Elegant Print Co.,Ltd

ISBN 978-952-60-0092-3 (print)

ISBN 978-952-60-0091-6 (pdf)

ISBN 978-952-60-0093-0 (ePub)

# Contents

<b>Welcome from Conference Chair.....</b>	<b>1</b>
<b>Cumulus Association.....</b>	<b>3</b>
<b>Cumulus President's Message.....</b>	<b>4</b>
<b>School of Design, Jiangnan University.....</b>	<b>5</b>
<b>Cumulus 2018 Wuxi Conference.....</b>	<b>6</b>
<b>International Reviewer Board.....</b>	<b>7</b>
<b>1. Emerging design research and practices.....</b>	<b>10</b>
<b>Academic Papers</b>	
Research on the Innovative Mode of Intelligent Integration of Clothing Industry.....	12
<i>Zhang Xiying and Shen Lei</i>	
When Fashion Meets Technology—Responsive and Personalized Design for Fashion Bag .....	21
<i>He Shuang</i>	
Research on sound design for urban rail transit voice broadcasting based on EEG technology.....	31
<i>SHAO Jiayu, Zhu Wen and Chen wenqing</i>	
Rethinking Mainland China Educational Systems Through Service Design Approaches	42
<i>Yelena Tsopa and Xin Xiangyang and Vittoria Daiello</i>	
Study on Materialized Experience of Intangible Cultural Heritage in Museum Perspective: Take the Patterned Band Weaving Handicraft of the Miao Nationality of China as an Example.....	53
<i>Miao Liu and Eiko Sowa</i>	
A values-based direction: overcoming an imbalanced relationship between the designers and craftspeople.....	63
<i>Wanlin Zhang and Stuart Walker</i>	
Design thinking for public good: moving towards change?.....	75
<i>Arianna Vignati and Mariana Fonseca Braga</i>	
Cultural Transition & Design Opportunities: A Research on New Pattern Design of Traditional Chinese Indigo Printed Fabric.....	88
<i>Dong Li and Fei Shen</i>	
Relationship Quality in Collaborative Service Encounters: A study of the factors affecting the pleasure of temporary team volunteers.....	98
<i>Yang Zi, Gong Miaosen and Zhang Li</i>	
Transition to Digital Manufacturing: generating product opportunities with authentically ‘post-series’ design.....	99
<i>Loredana Di Lucchio, Viktor Malakuczki and Alex Coppola</i>	
Endogenous Creative System Based on Rural Cultural Resources.....	125
<i>Youyu Jiang, Xiaolei Min and Tie Ji</i>	
Research on Interactive Design of Intellectual Training Products for Elderly Based on Multi-sensory Experience.....	134
<i>Tingting Wang and Dongjuan Xiao</i>	

Docu-design : decrypting present-day through design.....	144
<i>Elizabeth Hale</i>	
Designing acculturated phygital experiences.....	153
Francesco Zurlo, Venanzio Arquilla, Gianluca Carella and Maria Cristina Tamburello	
Mapping of the Competitive Advanced Models and Services in Cultural and Creative Industries.....	165
<i>Xue Pei, Arianna Vignati, Renato Ocone, Claudia Pinna and Monica Rossi</i>	
Teaching E-learning Advanced Program for Visually Impaired Students.....	177
<i>Theresa Lobo</i>	
Situation-Centered Automotive Cluster UI Design for the 'Passenger' in Self-Driving....	188
<i>Hyunji Kim and Eui Chul Jung</i>	
A Research of Innovation Opportunities in Future Museum Design.....	204
<i>Duan Wu, Chenxi Yao</i>	
On the Innovation of Design Management in the Internet Age----A Case Study of D9X Social Innovation Lab.....	220
<i>Chi Zhang and Jiajia Song</i>	
Experience-based Co-design for Improving Hospital Experience by Mobile Application	229
<i>Wenjie Wang and Dongjuan Xiao</i>	
<b>Professional Proposals.....</b>	<b>240</b>
Facilitating a Growth Mindset of Creativity for Adults Using a Game Design Approach.	241
<i>Shasha Yu, Elizabeth B.-N. Sanders, Peter Kwok Chan</i>	
Research and Application of Peking Opera Costume Craftsmanship—Taking the Application of Scraping Paste Process in Fashion Design as an Example.....	248
<i>BiRan and LiWei</i>	
Feasibility Research of Business on Community Micro Regeneration, A UniHub Distributed System Perspective.....	255
<i>CHEN Fan, MA Yu-Hong, QIAN Li</i>	
Designing places for cultural landscapes in transition.....	260
<i>Agnese Rebaglio</i>	
Collaboration and Co-creation: A study on the design strategy of the enabling problems of moderate adult intelligence and developmental disabilities.....	269
<i>Zheng Binbin ,Yang Zi and Gong Miaosen</i>	
Study on Interaction Design of Electric Vehicles Based on PACT(A\C) Theory.....	281
<i>Weng Chao , Zhang Yelei and Gong Miaosen</i>	
"Secondary Design"—Analysis of Methods and Practices in Artist Derivative Design	286
<i>YangJin</i>	
The digital experience and sustainability of the museum.....	294
<i>Wu Qiong</i>	
Extreme tendencies and individual consciousness in Chinese contemporary art jewellery .....	302
<i>Zhilu Cheng and Jun Hu</i>	
<b>2.Evolution and continuation of design education.....</b>	<b>311</b>
<b>Academic Papers.....</b>	<b>312</b>
Study on Multi-specialty Integrated Design Course for Master of Fine Arts of Design Discipline.....	313
<i>Liu Jia and Guo Weimin and Wang Xinyi</i>	
Transforming Intercultural Textile Teaching Culture – A Method Approach.....	326
<i>Brigitt Egloff and Tina Moor</i>	
Research on Evaluation of Industrial Design Education Competitiveness in China.....	340

<i>XU Jiang, Chu Jia Rui, Ou Xifan, Gan Xiang</i>	
An Authentic Teaching Strategy of Merchandising-Learning Content to Deliver a Standards-Driven Design Curriculum.....	353
<i>Juan Du</i>	
Future Pathways for Design-Driven Entrepreneurship Education.....	365
<i>Rhea Alexander and Vinay Kumar Mysore</i>	
A Day of a Blind People—Complexity and Conflicition In Design.....	379
<i>Xiong Yi and Zhao Quanquan</i>	
Integrating ownership and entrepreneurial mindset in design education.....	389
<i>Harshit P. Desai</i>	
Images of Compromise: investigating the projected identity of UK art schools through visual representations.....	402
<i>Yanyan Liao and Tom Fisher</i>	
Creativity through interdisciplinary environments—improving innovation in students’ teams .....	413
<i>Miguel Salinas</i>	
Enhancing student experience in design education through participatory design methodology.....	425
<i>Yang Lili, Zhou Zhiyu, Xin Xiangyang, Yu Chengcheng, Han Yu</i>	
Design Thinking as new leverage for Entrepreneurship Education.....	439
<i>Arianna Vignati and Gianluca Carella</i>	
Providing a Project-introduction Design Curriculum.....	454
<i>Tianxiao Xie and Qingman Wu</i>	
Involving user perspectives in architectural design through scenarios: Lessons learned with students designing a co-working space.....	461
<i>Valerie Van der Linden, Sarah Flebus, Mauro Poponcini, and Ann Heylighen</i>	
Explore Learning by Design (LBD) in Chinese Primary Schools: A Case Study from Beijing, China.....	475
<i>Liang Yin, Wei Liu, Yancong Zhu, Davide Fassi, Jing Zhao and Anran Qin</i>	
Transforming the Traditional Chinese Classroom: A Case Study of Tongji-Huangpu School of Design and Innovation.....	484
<i>Yubei Gong, Yongqi Lou</i>	
Building Up a Mindset of Design for Sustainability.....	497
<i>Xiaocun Zhu and Pius Leuba dit Galland</i>	
<b>Professional Proposals.....</b>	<b>510</b>
The Proposal of Design Education to acquire Design Thinking using Origami Architecture and Digital Fabrication.....	511
<i>Tomohisa Gokoh Seiichiro Matsumura Tadashi Sakai</i>	
<b>3.The change and certainty of design discipline.....</b>	<b>518</b>
<b>Academic Papers.....</b>	<b>519</b>
Form follows experience: Research on product morphological design.....	520
<i>Yang Lili, Xin Xiangyang, Zhou Zhiyu, Han Yu, Yu Chengcheng</i>	
Research on the Construction of Knowledge Map of Design Theory and Method - Based on the Perspective of Natural Science Foundation of China.....	532
<i>Ou Xifan and Xu Jiang, Sun Gang, Xu Jingyu</i>	
Anchoring Design Transitions with Case Studies.....	542
<i>Andrew Shea</i>	
Originality in Design. The needed discipline for Fashion Designers.....	556
<i>Jewellyn Alvares</i>	

## 4. Interdisciplinary integration and design position..... 562

### Academic Papers..... 563

Future Retail for Kids: Emerging Changes and Design Opportunities.....	564
<i>Xue Pei, Arianna Vignati, Luca Fois, Renato Ocone and Michele Melazzini</i>	
An Parametric Analysis on the Spatial Texture of the Historical Block—Taking Nanjing Lotus Pond as an Example.....	573
<i>Zhang Chunxia , Guo Weimin , Xie Jinzhi</i>	
Reaching a Million.....	589
<i>Ebba Lindgren</i>	
Metaphor, Rhetoric, and Design: Creating Meaning through Re-recognition.....	608
<i>Zhu Liand Xin Xiangyang</i>	
Research on intelligent clothing design and sustainable design for the elderly.....	617
<i>REN Xiangfang and SHEN Lei</i>	
CO-DESIGN: AN INTERDISCIPLINARY-DIALOGUE PLATFORM TO RECONSTRUCT OLD COMMUNITIES.....	626
<i>Zhang Bowen and Guo Weimin</i>	
From “Cure” To “Take Care”: A Design Interdisciplinary Approach in the Care of Dementia .....	637
<i>Silvia Maria Gramegna and Alessandro Biamonti</i>	
Research on Creation of Positive Environment Based on Positive Psychology.....	647
<i>Liu Runze and Zhou Haoming</i>	
Digital Archive as a Creative Booster. Connecting Design Processes to Logistics and PLM Platforms.....	651
<i>Gabriele Goretti, Elisabetta Cianfanelli and Margherita Tufarelli</i>	
Engaging Practitioners in Interdisciplinary Collaborative Design Studio Courses to Advance Practice and Pedagogy.....	667
<i>Peter Kwok Chan,Rebekah Lynn</i>	
Design-led Interdisciplinary Research for Social Innovation.....	679
<i>Lisa E. Mercer</i>	
CAMPO: Towards an Open [democratic] and Adaptive User Centered Data Management as an alternative to traditional Market Research in Housing [serial] Design.....	687
<i>Raiza Barrera Vega</i>	

## 5. Sustainable vision and design challenges..... 700

### Academic Papers..... 701

Smart vehicles.A design contribution for the changing urban mobility.....	702
<i>Elisabetta Cianfanelli, Gabriele Goretti , Margherita Tufarelli</i>	
From scarcity-induced creativity to sustainable fashion practices: repurposing the Soviet DIY for today.....	714
<i>Simona Veilande and Emils Rode</i>	
Optimization Strategy of Urban Public Bicycle Service Experience under the Impact of Bicycle-sharing.....	727
<i>Lou Ming Zhang Ling-hao and Zhang Qing</i>	
Nanghai Food Stories. Edible Explorations of a Place in Transition.....	737
<i>Serena Pollastri, Maria Alejandra Lujan Escalante, and Tong Meng</i>	
From “The Limits to Growth” to Systemic Design:envisioning a sustainable future.....	751
<i>Peruccio Pier Paolo, Vrenna Maurizio, Menzardi Paola and Savina Alessandra</i>	
Analyzing the Creative Element of Upcycling in Design Education.....	760
<i>Qiu Dengke, Peng Jinqi, David Bramston, Qiu Zhiyun , Wei Rui, Li Yuanxin</i>	

Cup-Sharing Service Design Model for Campus Cafés in South Korea to Reduce Disposable Consumption.....	773
<i>Eui-chul Jung , Gahyung Song, Youngeun Lee and Minkyung Kim</i>	
Time Unbound:Inter-weaving Cultural Craft and Design with a Vision for Sustenance..	786
<i>Manpreet Kaur and Ruchira Bahl</i>	
Touch of Genius: traditional craft, its relationship to place, culture and nature, and design praxis.....	799
<i>Louise Mullagh, Stuart Walker, Martyn Evans</i>	
Thermal Comfort Analysis of Winter Micro-environment in Beijing Cuandixia Traditional Courtyard.....	812
<i>Zhou Haoming, Nong Limei</i>	
<b>Professional Proposals.....</b>	<b>824</b>
The Respective Roles of the Government, Citizens and Academics in the Sustainable Development of Tamba Nuno.....	825
<i>Eiko Sowa</i>	
Research on the Space adaptability Transformation of stilted Building in Xiangxi Countryside based on the Mode of Family Endowment.....	830
<i>First Author Lu Yuechi</i>	
<b>6.Global transition and local design response.....</b>	<b>837</b>
<b>Academic Papers.....</b>	<b>838</b>
New Nordic graphic design: the balance between Scandinavian traditional crafting and globalization 3.0.....	839
<i>Margaret Rynning</i>	
The Impact of Globalization on Local Scripts.....	851
<i>Randa Abdel Baki</i>	
Research on the Elderly-Oriented Renewal of Traditional Vernacular Dwellings in Xiamen from the Perspective of Social Integration.....	863
<i>Maiqi Lin and Huifang Shang*</i>	
Design Supporting the Regional Transition towards a Circular Economy.....	875
<i>Maarit Virtanen, Kristiina Soini-Salomaa and Mirja Kälviäinen</i>	
Constitution Analysis of the Interior Culture of the Qiang People’s Zhuangfang.....	893
<i>Zhou Haoming, LIU Wei</i>	
Crossing Design: Italy-China as a Design-Driven Language.Joint research labs in between Chinese and Italian cultures on high-end manufacturing through a design driven perspective.....	898
<i>Gabriele Goretti, Ruquan Yang and Elisabetta Cianfanelli</i>	
Research on the Interest of Museum Exhibition Design in Globalization 3.0.....	912
<i>Chen Lin</i>	
Gene Mapping Design for Ethnic Costume: Taking the Taroko Patterns in Hualien as an Example.....	918
<i>Ti Zhou and Hui’e Liang</i>	
Design Intervention and Social Innovation Based on Dong Minority’s Food Culture.....	928
<i>Yinman Guo, Tie Ji, and Juncai Chen</i>	
Notating Engagement in Cross-Cultural Design Activities.....	936
<i>Nick Bryan-Kinns, Wei Wang, and Tie Ji</i>	
Communication as a Driver in Bottom-Up Project Implementation—the Case of Shaxi Low-Carbon Mobility Project.....	950
<i>Feiye Xu, Xiaocun Zhu, and Pius Leuba Dit Galland</i>	
Research on the Transformation of Industrial Design Driven by Quantum Theory.....	978

*Lan Cuiqin, Zhang Fan, Wei Qinwen*

**Professional Proposals.....985**

Future Craft China: Design Education Bridging Local Cultural Heritage and Global Contemporary Design..... 986

*David MocarSKI, Penny Herscovitch, Dan Gottlieb*

Sustainable Development: Creating A Virtuous Production-Consumption Cycle..... 997

*Jacob Mathew and Fayiqah Halim*

Cultivating Conviviality (How to co-create conviviality tools that improve “togetherness” by highlighting specific knowhows of migrants?)..... 1002

*Anna Bernagozzi*

Examples of New Sustainable Textiles Production in Finland - Small, Local, Open and Connected..... 1007

*Pirjo Seddiki*



# **Crossing Design: Italy-China as a Design-Driven Language. Joint research labs in between Chinese and Italian cultures on high-end manufacturing through a design driven perspective.**

Gabriele Goretti<sup>1</sup>, Ruquan Yang<sup>2</sup> and Elisabetta Cianfanelli<sup>3</sup>

<sup>1</sup> Nanjing University/School of Arts, China. gabriele.goretti@qq.com

<sup>2</sup> Zhongkai University, China. hhover@163.com

<sup>3</sup> University of Florence/DIDA, Italy. elisabetta.cianfanelli@unifi.it

## **Abstract (Arial Bold 10 pt)**

This document shows how your abstract should look. Abstracts should be 200 words maximum. (Arial 10 pt)

## **Keywords (Arial Bold 10 pt)**

First Keyword, Second Keyword, Third Keyword.

## **Abstract**

The research starts from the assumption of having commonalities among Italy and China countries in term of production sectors and manufacturing know how, to highlight on possible common key values comparing Tuscany fashion and design productive district (as a model) to the Chinese emerging creative processes and traditional manufacturing heritage.

Through design laboratories in connection with SMEs in fashion, furniture and home details in Florence (Italy) and China, Crossing design project expresses how design processes could interpret the contemporary lifestyle through cultural cross fertilizations in between these two significant cultural contexts, both based on globally important manufacturing know-how. The ethnographic and anthropological values generate new communication path in between two design cultures and in between Eastern/Western user scenarios.

Crossing Design methodology start from cross-cultural case histories: the Italian laboratory uses Chinese Cultural elements as a reference for Italian students and junior designers. On the other hand, the Chinese workshops propose high-end made in Italy case histories as significant case studies to set design or re-design processes on Chinese historical manufacturing processes and emerging user scenarios.

Following this framework, the Crossing Labs aims at setting new design guidelines to make Chinese Historical Crafts as an attracting value for international market in a g-local perspective. On the other hand, to highlight the quality of Italian design and made in Italy as a common heritage for the international design education to enhance understanding quality processes and cultural creative processes.

The paper presents two significant case histories from Crossing Design Labs: some furniture design concept for Chinese market developed at Design Campus of University of Florence by interpreting Ming Dynasty references; some furniture design concepts from a workshop developed at Zhongkai University in Guangzhou, aiming at developing new design concepts for western user scenarios inspired by Chinese cultural element.

The design processes have been done by workshop sessions including theoretical lessons and visit to Chinese and Italian Companies, aiming at making the students understanding the intrinsic values of the historical manufacturing processes.

### **Keywords**

Product Design; Manufacturing; Crossing Cultures; Craftsmanship; G-local

## **1. Research in Shapes and product values**

### **1.1 Research on Shapes as Main Communication Language for Italian Design**

One of the main differentiation key points of Italian design in the international arena is the research focus on shapes of the product and product system. In particular, the Florentine Design School puts morphology and aesthetic quality of the artifact in a predominant position within design processes and project development. The shape is often studied in the first phase of conception, and consequently developed and refined downstream of the process.

Analyzing the works of leading masters of Italian design famous around the world, and especially of the Florentine design leaders such as Giovanni Klaus Koenig, Pierluigi Spadolini and Roberto Segoni, we could note at the first sight a pure rationalistic emphasis. At the same time it is possible to perceive a clear phenomenological focus within of project processing. From the first ideal conception they move (quickly) to technical drawing and especially to the model, a tangible test of "beauty" and "strength" of the project. Therefore, the phenomenological approach to the product is playing a crucial role in the development of the workshop "Shaping Emotions" - which took place in the October 2013 within Advanced Product Design course. In this volume the workshop project leaders will explain the emotional value of emotions inspired "materials" beauty, with a synaesthetic approach. As represented, in example, from a first unconscious interaction between artefact and user.

We can trace the main areas of innovation that could be achieved through the design process (Ingaramo, Rampino 2007):

- **aesthetics innovation:** relating to the recognizability of the product, or how the product differs in market competition;
- **typology innovation:** relating to product differentiation from the Formal archetype or by the used structure of the product system;
- **functional innovation:** relating to how the product improves or changes its functions in relation with other products in the market;
- **sense innovation:** related to emotional perception of the product, The emotional connection that the product is establishing with the user, through its function and production processes.

Therefore Shape studies represent as strategic element at all levels of innovation.

The shape could be a differentiation element in the market, an aesthetic innovation element. In addition, this could be also an typological innovation element. Through the shape, the product is facing with the archetype of reference and structuring a dialectic communication between the user and product through product morphology. Through the shapes it is possible to create specific procedures for product use, leading the user to specific usage scenarios. Certainly, the shape plays a crucial role in sense innovation too, i.e. , the emotional design and product meaning are playing a crucial role in daily user scenarios.

Summarizing, the studies on shapes and product morphology could be considered as two main phases within design research. In particular, in the shaping research we can focus on product values connected to the emotional aspects coming from the artefact signs and their specific hierarchy. On the other hand, in the morphology studies the product values could involve the materials performances and functional matters.

## **1.2 Shaping Emotions Research at University of Florence: Experiencing Phenomenology of Shapes as a Foundation for Emotional Design in “Made in Italy”**

The project experience developed within Shaping Emotions research within REI lab<sup>116</sup> at Design Campus of University of Florence addresses the role of the formal innovation as synthetic element through mono-material prototypes (artefacts in expanded polyurethane), embracing all four levels of innovation. The project framework avoids specific product categories and develops prototypes expressing playful (or not playful) contents through shapes. Moving from specific user scenarios referring to interaction practices, the workshop is structured by a shaping exercise. The process is aiming at including all the user sensations, studying how the shape - without precise references to product archetypes- can have a decisive role in the definition of design strategies, transversely embracing aesthetics, typological, use and sense innovation. Therefore, the shape develops innovation processes in daily life interaction, amplifying and interpreting functional values of the new technologies incorporated to the product.

The experiences of the workshop discussed in this volume foremost addressed the emotional design issues and interaction user – product with purely phenomenological approach (Mustakas 1994), or by taking reference scenarios from daily life that evoke mixed and complex emotions . These “scenes” are investigated in accordance with operational schemes of interpretation that arise from experimental psychology. This discipline doesn't study the absolute essence of a mood but takes in account only the elements resulting from stimuli or other states of mind of the everyday life. First, we identify the stimuli that trigger emotions. In the case of a product it will never be the object itself to generate a particular state of mind, but an aspect or a part of it .

Desmet cites some elements of the artifact that can evoke or bring an emotion: the appearance of a portable device could generate admiration; an incomprehensible menu of a television can lead to frustration, a user friendly tutorial instead full satisfaction. Driving a hybrid car can give you a sense of honor, From these stimuli we can take the emotion and the phenomenology of it. In particular, we note two kinds of emotion, a first “experiential” developed through a direct interaction with the product or the product system. A second one is “behavioral”, which defines a tendency to do or perform something, in a specific way.

116

<https://www.dida.unifi.it/vp-234-laboratorio-reverse-engineering-and-interaction-design.html>

In this context, the role of design stands as a “visionary pilot”<sup>117</sup>. Then, he is not only deputy to shape the products but he represents an effective strategic payer. The design proposals move from the expectations and needs of people in real contexts. We need to make explicit the need of the users he is not able to express due of lack of tools and effective interpretations models. This is the reason why the study of user scenarios is a crucial design matter to define the project guidelines and to position the product in the contemporary market. By analyzing a user scenario about daily life we can highlight the semantic and semiotic aspects, focusing on user interaction to the product shapes and on the product awareness in a social context.

### 1.3 Emotional Contents Included in Talent of Manufacturing

The concept of craftsmanship (it. Saper Fare) means “knowing how to do things,” including the arts and skills of doing, knowledge of the materials and craft processes.

When this knowledge meets innovation, when innovation absorbs the craftsman tangible and intangible skill - without to delete it - then we speak about advanced craftsmanship (Goretti, 2017).

Craftsmanship combines artistic vision, specific skill set and knowledge about raw materials. “Saper fare” (Italian expression meaning “artisanal skill set”) is today partly integrated in SMEs manufacturing processes in different regions of the Mediterranean area. This know-how still exists to date even if mediated by machines and modern tools. Then, artisanal processes are often able to absorb advanced technologies into tangible and intangible values of craftsmanship (hence, the concept of “advanced craftsmanship”). “The economic and financial crisis is comparable to a cyclone. We’re just beginning. The cyclone will transform the socio-cultural paradigms orienting them towards a era of change leading to the “explosion” of communication and consumption models as we have known so far (Morace 2010).

Therefore, the “craftsmanship” supply chain could present some significant changes and new business visions. High-range manufacturing processes could highlight the product quality to the customer, producing new product concepts and brand awareness strategy. Then, the economic situation is offering a new strategic perspective. The return to the “substance”, as searching for tangible qualities, could be at the center of new user-centred project, highlighting the value of making quality. This phenomenon has accelerated strongly in recent years and it is primarily related to the objects of use, neo-craft attendances (often not in relationship with mass production) in everyday life. The skill and the technical component become the “soul” of creativity, defining contemporary meaning of the “industrial product”. The digital research is fascinated and “swallowed up” by this design dimension, through projects that are aiming at highlighting the values of making, the precision of craftsmanship, the time dedicated to the creation and the “genius” of those who create the artefacts.

Crossing design research framework starts from the assumption of having commonalities among Italy and China in term of production sectors and manufacturing know-how, to highlight on possible common key values comparing Tuscany fashion and design productive district (as a model) to the Chinese emerging creative processes and traditional manufacturing heritage. The research focuses on product design and interior design case histories highlighting the power of “made in Italy” as a innovation compass for global design processes, in particular as a guide for the redesign processes involving traditional Chinese traditional craftsmanship.

<sup>117</sup> please refer to Cova B., Au-delà du design industriel: une brève histoire de l’innovation industrielle, in “ABCdaire Design”, Mairie de Toulouse

## 2. Design in China, in Between Tradition and Research on New Shapes

### 2.1 Contemporary Chinese Design

Contemporary Chinese product designers have common view in relationship between tradition and modern design that innovation should base on tradition and modern design should be harmonious with traditional culture. But the contemporary products in Chinese market show composite of diverse style which are so-called International Style and they rarely give vivid expression to Chinese traditional culture context.

The question of Western cultural hegemony in design, having greater cultural power than the Eastern one whether because of media communication and social standing of specific icon of international design, represent a complex matter in contemporary Chinese design scenario. As such, discussion of cross-cultural design relies heavily on the theoretical discourse of globalization and postcolonial criticism (Tai, 2008), which in turn finds its roots in a specific imaginary about innovative and contemporary design often in conflict to traditional Chinese shapes and processes.

On the other side, traditional craft and products which as a symbol of traditional culture are vanishing little by little. Some innovative design based on traditional products are limited to old ideology, material, technology and style and do little break through the tradition. These foggyish designs have little attraction to young generation on present Chinese market. This phenomenon shows designers, specially young designers, have little understanding and perception on traditional ideological system, aesthetics, produce theory and craft of China. Design in China, in practice and in theory, do not handle relationship well between tradition and contemporary design.

Anyway, Chinese design culture is including some significant element and stimuli part of an ancient tradition connecting philosophical topics, sociological assets and shaping guidelines. The Chinese culture is based on the “position” that man is in the cosmos, it proposes a concept of fluidity and continuity of matter which expands in terms of space/time, becoming a sort of “mainstay” for life, supporting values indisputably universal. The Chinese culture have developed over the centuries a great ability to balance the opposites and to live in harmony, despite being surrounded by contradictions which were and are still present in their everyday lives, in their behavior and in political beliefs and social issues.

Chinese-determination is recognizable even in their cultural heritage, which includes many examples of artistic breakthroughs, which attest to the great patience and skill.

The need to prepare for the future and the unpredictability of the cosmos is often connected to the strong will to improve existing facilities and explore new artistic and scientific fields. This cultural attitude has subsequently affected in many ways even Western culture. Internationally, the Chinese art is proving to be one of the most interesting, especially regarding traditional techniques, such as photography and painting. This continuous research represents a significant habitat for contemporary Chinese g-local design research<sup>118</sup>.

<sup>118</sup> Italian Genius – Joint Lab Academia-Company within REI lab research at DIDA University of Florence, in partnership with Cluev (Russia).

### **3. Crossing Design Project, Design-Driven Exchange in Between Italy and China**

#### **3.1 Joint lab Academia-Industries as a Research and Educational Tool to (Re)connect Students to Craftsmanship Know-How**

Home furnishings in Italy are primarily manufactured by a group of small and medium enterprises (SMEs). These companies have undergone profound transformations in their manufacturing processes, particularly by the progressive juxtaposition of innovative technologies and traditional place-based craft processes. The result is "advanced craftsmanship": the use of computer-controlled machinery to replicate manual processes derived from genius loci heritage.

The DIDA design research team (PhD, post-doctoral and faculty researchers) in 2012 created a program of Joint Labs to train undergraduate students in "advanced craftsmanship," through educational paths that connect traditional craftsmanship knowhow with innovative manufacturing processes.

After students acquire theoretical preparation, the DIDA department connects new departments in the partner companies with teams of students who are able to interact with artisanal craftsmen as well as with innovation sectors of the supply-chain. These enclaves within the companies create a win-win situation: the company improves the advanced craftsmanship and R&D sectors, while the academia trains students through direct interactions with the production chain. In addition, connecting the University's advanced research with the SMEs' artisanal savoir-faire brings fresh energy into the manufacturing process, improving the companies' time to market and preserving the craftsmanship knowhow through the generations.

#### **3.2 Cultural Cross-Fertilizations within Joint Labs Activities**

The workshop program in between Italy and China aims at developing design research paths establishing cross-fertilization processes in between different cultural references in shapes and production methodologies.

This common exchange language, based on design culture and craft-based similar manufacturing know-how, allow at designing new concepts and product-systems setting new market opportunities and new business models. The workshop operates on high-end manufacturing based design areas, aiming at stressing the cultural and craftsmanship-based components in design processes, by a continuous connection to the production chain.

The workshops work on following selected topics and guidelines, based on similar manufacturing know-how in between China and Italy:

- Home furnishings and home details;
- Home facilities, as technological devises for the domestic user scenarios;
- Fashion accessories and wearable products.

### **3.3 Methodology: Joint Lab Process Based on DIDA/University of Florence Model**

#### **1 – Student selection and internship organization – about 1 month**

The DIDA research team selects students from the third year of the bachelor program in Industrial Design and from the second year of the master program in Design and Fashion Design System. The students receive a preliminary theoretical preparation, followed by an internship experience of 6 months in a partner manufacturing company. In the internship phase, the research team select appropriate technical equipment for each Joint Lab. All costs are shared between the University and the partner company. If possible, the University and the partner company apply jointly for a public grant promoting manufacturing innovation (i.e. Horizon 2020—SME Instrument/Smart Factory program: Executive Agency for SMEs, European Commission).

#### **2 – Theoretical preparation for student team at the University – about 1 week**

The DIDA research team provides theoretical training for the Joint Lab students at the University, arranging lesson topics according to the needs and culture of the partner company.

#### **3 – Team preparation in the company of students and tutors (PhD students or researchers)- about 2 weeks**

After the theoretical preparation at DIDA, the selected student team and tutors begin training in the partner company, under the supervision of interested departments: these are usually design or other technical departments, or communication or logistics sectors. The first week of the training period is dedicated to introducing tutors (usually PhD or Post-doc researchers) to the company environments and to the basic practical Savoir Faire of the manufacturing chain. In the second week, students are introduced to the environment and manufacturing knowhow. In this phase, the appropriate technical equipment is made available to the students.

#### **4 – Joint Lab starting point - with the support of internal technical department**

After these training phases, the technical departments of the company give assignments to the student teams and the work starts. The tutors work with the involved company departments to create a calendar of revisions and delivery of student works. The tutors also prepare a joint lab report, and present best-practice tutorials every two weeks. (Overby, Goretti, Cianfanelli, 2016)

## **4. Design Research on the Field in Between Italy and China**

### **4.1 Design Strategy Workshop 2015/16 at Zhongkai University - Thinking , Method, Achievements**

#### **4.1.1 Zhongkai University visting Italy and Italian craft-based design**

As visiting scholars, Zhongkai University delegation visited Florence University within Sino-Italian program for half a year. The visiting team was impressed by difference between Italian design and Chinese one. The product design in Tuscany is vivid and passionate, the feeling of looking at the artefacts was complex, including tangible and intangible effects and values. These products style appears full of vitality, art sense and strong sensation on shape and imagination. Meanwhile, from Roman times especially from Renaissance to present, art is very important part in Italian life. The Italian have high sensitive to colours, form and art, and they have good taste for products' style.

Compare to Chinese designers, Italian designers can feel and touch their history at any time and any place. They understand and love their tradition and they think that created design for future based on tradition is a spontaneous process. They don't think there is a gap between tradition and modern design and rarely anxious on traditional vanishing. Their design shows more confidence, creativity and spontaneous approach when they related tradition to modern life.

#### 4.1.2 Crossing Design Workshop at Zhongkai University Hosting representatives from University of Florence

In July 2016, Doctor Gabriele Goretti from REI Lab of University of Florence held a week workshop in Zhongkai University of Agriculture and Engineering as a representative from Florence University to set a Crossing Design experience in Guangzhou. About 30 students joined the workshop, focusing on crossing culture subjects in design. Students must be inspired by something in Chinese tradition and use them designing furniture which should satisfy European market such as Italian market's need. Assisting these students of China comprehend luxury furniture style in present Italian market, doctor Gabriele Goretti gave them some Italian furniture brand such as Moroso (figure 1) as reference.



Figure. 1. Furniture of Moroso (from Moroso home page)

In designing process, the workshop brief required students think about furniture defining a user scenario including environmental specific characters and describing their possible consumer carefully. The workshop preparation phase emphasized that these consumer in Italian luxury market more prefer high quality furniture which can satisfy their high quality life's need. High quality not only refer to excellent material, technology and craft, moreover refer to good taste in design and daily living. Students must finished their sketch and rendering in a week in the situation that they had not been in Italy before and had no more knowledge and sense about Italian furniture market. All they had as a starting package of the workshop was a selection of Italian furniture brands. In addition they had to focus on their knowledge about Chinese tradition element. This situation stimulated them to abandon their customary design thinking tie such as tradition culture promoting, culture meaning seeking, culture artistic conception expressing etc. and to search multivariate shape in design combing Chinese element and Italian style. This process loosed their mind and brought more original creativity in shape, form and color. They said they felt more freedom in design thinking and they can integrated more emotion in their design. They all finished their design work at end of that week.(Figure 2—Figure 5)





Figure. 2. A Wardrobe inspired by Chinese shadows theatre



Figure. 3. A Set of Furniture



Figure. 4. A Ceiling lamp interpreting in a contemporary way the Chinese Graphics and Calligraphy

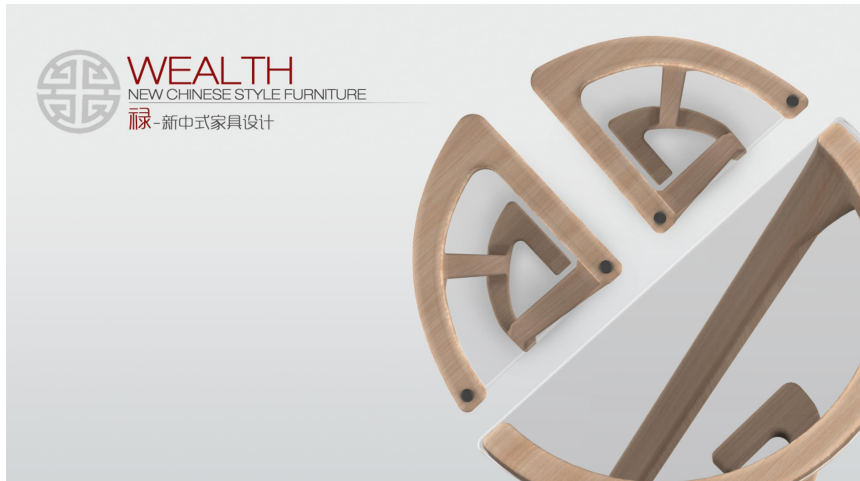


Figure. 5. Table and Stool interpreting traditional Chinese graphics

Inspired by attitude and method that Italian deal with relationship between tradition and modern design, Chinese designer should spend more time in studying traditional culture and design, understanding and feeling the theory, aesthetics, function, shape, craft in traditional building, painting, costume, furniture and other products in Chinese history. Moreover, they should understand and face the great change in social environment and lifestyle in today and future. Basing on history and tradition, they could set a valuable design for today and future. Meanwhile, inspired by Italian products' emotional shape, Chinese designer can pay more attention on shape and form based on function and manufacturing values.

#### 4.2 Jia Ju Italia Research at University of Florence

The research develops studies about the differences and possible relations in between Ming dynasty furniture and contemporary international style in design. The work was developed in 2016 within REI lab/DIDA at University of Florence.

The furniture of the Ming dynasty are strongly related to Chinese cultural values and identities and, at the same time, to practical ability in high-end craftsmanship. The foreigners start looking for and buying the Ming furniture since the beginning of XX century, transferring abroad precious artifacts and then considering Ming heritage like a rare exotic booty.

In the 1920s, Gustav Ecke published the first book of the analysis of traditional Chinese furniture and it brought a major influence. He promoted the importance of this heritage including the technical skills of Chinese artists by the book's photos that represented a real fascination for foreigners viewers and artists. In 1985 the book was officially published as a crucial support for studies and, in particular, for the collectors of Ming furniture and home details. Unfortunately, in China the collectors haven't noticed yet the real value of Ming furniture in the world. So, the collectors of Hong Kong who discovered very precious Ming furniture in such provinces Jiang, JIN YI, SHAN etc. They are used to enter old mansions and houses looking for precious furniture, then they buy them with the lowest price possible and sell them with a 10 times higher price. The main reason why foreigner customer look for Ming Furniture is the mysterious fascination embedded on these artifacts. This exotic fascination makes this research one of the main auction and collectors business.

The research focused on differences in between Ming and Qing Dynasties as a representation of Chinese traditional furniture style and “contemporary” international style in furniture and interior design. As a western literature classic book, China recognize in this style as something not ending and timeless. Anyway we can highlight in these traditional taste of furniture and “silent” evolution, according to contemporary lifestyles and housing. Then we can speak about a contemporary classic Chinese style. In this context we can highlight some elements from Chinese traditional furnishings with an addition of modern mood in colors or new interpretation of shapes or redesign of finishing works on wood. Then the research is investigating on what is differentiating the real traditional Chinese style in furniture and home details and the “modern” one. The research highlights 3 main elements: structural materials (as wood), finishing materials (as fabrics) and colors.

Then, the work highlight on main characteristics of traditional furnishing in these three areas and defines the “reference elements” coming from the historical Chinese shapes and materials and the “variants” highlighting on how contemporary Chinese furniture production is including new shapes and decoration in traditional furniture formal heritage.

Jia Ju research uses selected references from history of Italian design as a guideline for interpreting the state of the art and the possible evolution of Chinese furniture design as an integration in between traditional shapes and contemporary re-design. As in Chinese manufacturing, Italian design emerged as a syncretic evolution from an historical craftsmanship know-how. So, a confront in between Italian history of design and manufacturing and Chinese transformation in furniture design could represent a strategic work to set significant design guidelines. From this dialectical approach the Jia Ju project created some furniture concepts aiming at visualizing possible evolutions and guidelines of this synergy in between Chinese historical shapes and new design interpretations.



Figure. 6. Jia Ju Cabinet 1



Figure. 7. Jia Ju Cabinet 2

## 5. Conclusions

The crossing design experiences in between Italian Design Culture and China highlighted very interested similarities, relevant differences and possible development scenarios.

First of All the Chinese students presented a strong propensity in understanding the product values related to the high-end manufacturing processes. The proposed Italian Case Histories, both in Zhongkai University workshop than in Jia Ju Italia research in Florence, offered contemporary products in furniture as sofas, bookcases or cabinets, related to high-end production chain, involving innovative materials and advanced manufacturing steps connected to traditional craft-based works – as high-end upholstery. Moroso case history was well representing this connection in between past and contemporary technics in production. The Chinese students were able to interpret this complexity in manufacturing by developing effecting design concept, as Wealth furniture collection.

Secondly. The students interpreted in a proper way the relation in between product design and cultural values involved in the User Experience and in the manufacturing framework. The Chinese Shadows wardrobe designed in Guangzhou workshop well described the inclusion of intangible cultural values in the design concept.

Finally, we can highlight a significant research of the students about the international lifestyle, and in particular on “how” and “why” global customers would be interested on a contemporary design related to traditional Chinese traditions and shapes. Jia Ju Italia concept, interpreting Italian postmodernism in design through Chinese shapes related to Ming Dynasty, defines an interesting positioning for this new cross-cultural design in the global luxury market.

Differently from other research methodology (Pei-Luen, 2017) investigating on design innovation on Eastern craft, the work moves from Western case histories (Italian Design in this case) focusing on semantics and phenomenology of shapes and manufacturing overview. The research sets creative processes and manufacturing values to be transferred as a design paradigm to the students. Then the students interpret a traditional cultural aspect through the design processes offered from the international examples, not coping or imitating the shapes of the proposed artefact but following the creative and manufacturing values highlighted from these case studies.

## References

- Apter, M.J. (2007). *Reversal theory: The Dynamic of Motivation, Emotion and Personality*. Oxford: Oneworld Publications, third edition. First edition published in 1989.
- Cacioppo, J.T., Gardner, W.L., and Berntson, G.G., (1999). The Affect System Has Parallel and Integrative Processing Components: Form Follows Function, *Journal of Personality and Social Psychology*, 76 (May), 839–55.
- Cianfanelli, E., Goretti, G. (2016). *Shaping Emotions for Product Design*. Altralinea, Florence.
- Cianfanelli, E., Goretti, G., Baccolini, R., Aiello, R. (2015) *UX Designers Education and Practice: Making Designer as Topic Connector to Enhance Intrinsic Complex Values of Made in Italy Craftsmanship*. E.craft Joint Lab Case History at Luisaviaroma.com – Cumulus Milan.
- Cova, B. (2003). Au-delà du design industriel: une brève histoire de l'innovation industrielle, in "ABCdaire Design", Mairie de Toulouse.
- Desmet, P.M.A., Porcelijn, R., & van Dijk, M. (2007). Emotional Design; Application of a Research Based Design Approach. *Journal of Knowledge, Technology & Policy*, 20(3), pp. 141-155.
- Desmet, P.M.A., & Dijkhuis, E.A. (2003). A Wheelchair can be Fun: a Case of Emotion-Driven Design. In: DPPI 2003; Proceedings of the International Conference on Designing Pleasurable Products and Interfaces, June 23-26, 2003. Pittsburgh, PA, USA, (pp. 23-26). New York, NY: ACM Press.
- Desmet, P.M.A. (2003). Measuring emotion; development and application of an instrument to measure emotional responses to products. In: M.A. Blythe, A.F. Monk, K. Overbeeke, & P.C. Wright (Eds.), *Funology: from usability to enjoyment*. Dordrecht: Kluwer Academic Publishers. pp. 111-123
- Desmet, P.M.A., & Hekkert, P. (2007). Framework of Product Experience. *International Journal of Design*, 1(1), pp. 13-23.
- De Fusco, R. (2014). *Made in Italy. Storia del Design Italiano*. Altralinea, Florence.
- Ecke, G., (1944). *Chinese domestic furniture*. Peking: H. Vetch.
- Ecke, G., (1986). *Chinese domestic furniture in photographs and measured drawings*. New York: Dover Publications. ISBN 0486251713.
- Entreprise du Patrimoine Vivant [www.patrimoine-vivant.com/en](http://www.patrimoine-vivant.com/en)
- Executive Agency for SMEs, European Commission  
[ec.europa.eu/easme/en/horizons-2020-sme-instrument](http://ec.europa.eu/easme/en/horizons-2020-sme-instrument) accessed 10 March 2016.
- Goretti, G., (2017). *Advances Craftsmanship- Maestria Avanzata, Percorsi di Progetto nei Distratti Manifatturieri Toscani*. Roma, Aracne, pp. 51-67.
- Ingaramo, M., Rampino, L. (2007). Design and Innovation: Action Research for Competitiveness / Proceedings of International Conference on Design Education, University of New South Wales, Sydney, Australia nel 09-12 Luglio 2007. pp. 1-7.
- Morace, F. (2003) *Estetiche italiane: le 6 tendenze del Made in Italy e la loro presenza nel mondo (Italian aesthetic: the 6 trends of the Made in Italy, and their presence in the world)* Books Scheiwiller, Milan
- Morace, F. (2010). *Il Talento dell'Impresa*. Milano, Ethos.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Overby, C., Goretti, G., Cianfanelli, E., (2016). *Savoir Faire and Innovation: Place-Based Design Heritage in Undergraduate Education*. In This Place Cumulus Conference proceedings, Nottingham Trent University. pp. 78-81.
- Pei-Luen P. R. (2017), *Cross-Cultural Design*, 9th International Conference, CCD 2017, Held as Part of HCI International 2017 proceedings, Vancouver (Canada), Springer

Po-Hsien L. (2013), Mo-Li L., Rungtai L., A Study of Aesthetics Analysis on Modern Crafts, in Cross-Cultural Design – Methods, Practice, and Case Studies, 5<sup>th</sup> International Conference Proceedings CCD 2013, held in part of HCI International 2013 proceedings, Las Vegas (USA), Springer.

Tai E. (2008) Cross-cultural Design. In: Erlhoff M., Marshall T. (eds) Design Dictionary. Board of International Research in Design. Birkhäuser Basel.

<https://www.politesi.polimi.it/handle/10589/22141>