

Textiles, Identity and Innovation

D_text

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TEXTILE DESIGN
CONFERENCE 2019

IN TOUCH

ABSTRACT BOOK

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FACULDADE DE ARQUITETURA
UNIVERSIDADE DE LISBOA



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Index

SESSION #1 TEXTILE PRODUCTS

Preservation of Hezhe Fish Skin tradition through Fashion Higher Education	04
Clothing for Leisure Wear with Fashionable and Functional Wool Fabrics	05
Clothing as a support in the tactual perception of visual impairment children.	06
Brazilian native flora and its potential for textile application	07
Light design for bag use: a contribute for user comfort	08
Reusable packaging design for shopping a contribute to sustainability	09

SESSION #2 MARKETING

Beyond the envelope: the architecture as a fashion communication tool.	10
Fashion Design Entrepreneurship: A qualitative approach	11
Uma nova realidade para as marcas: a era 4.0 centrada no humano	12
Pattern block design for clothing design of elderly dependent on caregivers.	13
Textile and Fashion SMEs: the adoption of sustainable strategic models	14
Consumers' clothing disposal behaviour: where should we go?.	15

SESSION #3 CONSUMPTION

Online footwear customization: experts' overview	16
Fashion retailing and consumer perception: an overview	17
Trend Studies in Fashion Design: Analysis of the Trend Observation Process, Industry Influence and Application Methods	18
The Street Store: the reuse of textile products focusing on street dwellers	19
New Approach about integrated Textile and Fashion Design supply chains	20
Retail Design: Contaminations between commerce and culture	21

SESSION #4 TEXTILE ART

Tents, Beds and Clothing: The Evocative Objects of Contemporary Art Textiles	22
Social Networks for Fashion Brands: Consumer perspective	23
Collective Tissue, Connective Tissue	24
Fashion design and art: crossing of contemporary creative processes	25
Between Nobility and Magic: Power and Costume in Fantasy Films	26

SESSION #5 CULTURE AND CRAFT

The Aesthetics in Fashion Design and Cultural Studies	27
The woollen manufacture industry in the Azores islands (1850-1930)	28
Património Têxtil e envelhecimento ativo; uma abordagem sociocultural	29
Tapestry and Synthesis of the Arts: Italy and Portugal in the XX century	30
Design Textile Accessories: Connection between Portuguese Felt and Silk.	31

SESSION #6 TEXTILE AND IDENTITY

Clothing for Leisure Wear with Fashionable and Functional Wool Fabrics	32
Pompeii and the renewed thread. Antique textures and contemporary narratives.	33
The Solar Vintage case: can the material of the design contribute for the preservation of traditional techniques?	34
The Slav Influence on Russian folk dress.	35
Entre o ser e o parecer, o toque (im)perfeito da moda.	36

SESSION #7 SMART TEXTILES

Bioinspired textiles that raise awareness about domestic air pollution	37
Postpartum cesarean underwear design as a recovery in the healing process	38
Copaíba essential oil microencapsulation: production and evaluation	39
Development of textile structures biodegradable and antimalarial	40
Otto: textile interactive toy for autistic children	41
Advanced textiles: sharing disciplines, project fields and practices	42

SESSION #8 TECHNICAL, WEAVED AND KNITTED TEXTILES

Experimental processes of knowledge exchange for knitwear design.	43
The Use of Technology to Unify the Areas of Biomechanic and Textile	44
Smart & Safe. Design for performative Workwear (S2PWD)	45
Disrupting digital making for seamless knit design.	46
Comparative study of the comfort promoted by the use of garments made of polyamide and polyester fibers during the practice of running	47
The use of craft techniques as a new creative mean in fashion in Brazil	48

SESSION #9 TEXTILE AND ARCHITECTURE

Lightwall: a story in textile	49
Smart textiles for architecture: embedded Signs + Information	50
The use of textiles in building rehabilitation: brief bibliographic review	51
Sustainable textile roofs in Architecture and Design	52
From Tectonics to Textile Polymers of New Architecture	53
The textile envelope building - as a promoter of the environmental comfort of the building	54
The textile air convector - as a promoter of the environmental comfort of the building	55
Recycling of glass waste to fiberglass production	56

SESSION #10 SURFACE, DIGITAL AND VIRTUAL TEXTILES

Implementation of additive manufacturing technologies in apparel production	57
Braille textile stamping: an inclusive approach to Brazilian surface design.	58
Vision and touch: Textile surfaces for unsighted individuals	59
Reviewing literature on innovation, entrepreneurship and Industry 4.0: as additive manufacturing technologies will soon be disruptive.	60
The Usage of Computer & Draping to Design Motifs & Clothes Inspired by Costumes of Najd City.	61
Arquitetura: Tecendo com fios de luz	62

SESSION #11 SUSTAINABLE TEXTILE

A novel environmental solution: innovative wool-rice straw yarn	63
Prototyping Textiles for a High Chair - Academy and Industry Interactions	64
Design for Sustainable Fashion: a S.PSS Scenario for Fashion	65
New sustainable processes in textile industry: extraction of natural dyes	66
Colour and Ecological Behaviour in Textiles: a path to sustainable choices.	67
Reuse and recycling of Solid Textile Residues (STR)	68
Fashion and Tapestry – A Dummy-loom as a Method of Modelling Clothes.	69
Creation of Optimal Combinations of Sorbents to Eliminate Excessive Amounts of Metals From the Wastewater of Textile Production	70

SESSION #12 TEACHING, RESEARCH AND EDUCATION

The Arachne myth: Testimonials of textile materials culture through art and iconography in antiquity and in the middle ages	71
Macau Fashion Industry in a Globalized Era: An Educational background Perspective	72
Less is More	73
Study of the organizational contexts that affect the designer's creativity	74
AO7 photoelectrocatalytic degradation at $\text{TiO}_2\text{-NT/La}_{0.6}\text{Ba}_{0.4}\text{Fe}_{0.6}\text{Ti}_{0.4}\text{O}_3$	75
The behavior of textile materials in thermal camouflage	76
Photocatalytic degradation of AO7 under visible light with Bi-doped SrTiO_3	77
Syntactic and semantic dimensions in design projects	78

Preservation of Hezhe Fish Skin tradition through Fashion Higher Education

ELISA PALOMINO

People have worn clothes made from fish skin since early times, with earliest traces being found from the Hezhe ethnic minority group in Northeast China. There is evidence of fish skin leather production in Scandinavia, Alaska, Hokkaido, Japan, Northeast China and Siberia. Although the craft has almost disappeared, in 2006 the skill of processing fish skin was one of the first listed as Intangible Cultural Heritage of China.

This paper describes the FishSkinLab workshop delivered at Tongjiang city, where experienced Hezhe craftspeople have pass down the endangered fish skin craft to the next generation of Chinese students as part of a sustainable fashion higher education program to learn best practices for social change and sustainability. The students mapped their creative journey, explored the rich cultural background of Hezhe communities and created a collection of fish skin textile samples with the help and guidance of Hezhe fish skin masters.

Clothing for Leisure Wear with Fashionable and Functional Wool Fabrics

B. REIS, R. MIGUEL, L. S. RIBEIRO, M. PEREIRA, J. CARVALHO

The focus of this work is to connect functional blended wool fabrics, to aesthetics and clothing design for leisure wear, making an exchange among the approached concepts.

Considering that, this study intends to approach the trilaminating process, composed with a membrane, to give the final fabric the functional component, combining after with fashionable aesthetics in clothing and the leisure movement. Also, were explored the potentials of wool fabric associated with leadingedge technologies already in the market.

The findings of this project were presented as the first results: four pieces of clothes were developed and manufactured. In the manufactured garments the application of fashionable and functional blended wool fabrics in apparel for leisure was made, integrating functionality successfully in fashion in everyday style.

Clothing as a support in the tactual perception of visual impairment children.

R. K. C. FERNANDES, N. A. PINHEIRO, L. J. SOLINO

This article proposes to discuss aspects of social inclusion as a resource to be encourage through the development of educational and interactive shirts that provide tactile experiences for children with visual impairment aged between 3 and 9 years. Seeing that the children's market does not develop enough products for that niche, it is expected to contribute to the discussion on the need for products that have functions that are noticeable for children with visual impairment on inclusive fashion market and the surface design in creating textures. Finally, to confirm and verify the product's efficiency developed, were conducted next the child, usability testing to assess the practicality, comfort, autonomy, tactile experience and reading in Braille. In this way, the work proposes, in a strategic and planned way, the elaboration of a product that contributes and in fact includes this public in the studied society.

Brazilian native flora and its potential for textile application

R. S. QUEIROZ , A. C. L. BROEGA, A. P. G. V. SOUTO

Due to increased concern about sustainability, natural fibres have returned to play an important role as an alternative to man-made fibres in several applications. Thousands of plant species around the world can be used as source fibres. Brazil is among the most biologically diverse countries on Earth and its flora represents a potential font for those resources. However, its knowledge and applicability still remain unknown. This paper provides the results of a survey, by a systematized literary review, of less common Brazilian fibrous plants with potential textile application. Almost 170 native fibrous species were identified. The species were classified according to their geographical distribution, vegetation type and fiber type. Based on a qualitative assessment, we selected the top 45 most relevant plants. Those results reaffirm the high potential of Brazilian flora as a source of textile fibres and reveal the feasibility of conducting experimental studies with several species.

Light design for bag use: a contribute for user comfort

P. NEVES

This light project which is incorporated in an organiser for use in bags and backpacks (daily use bags) has particular benefits for its user as the ease of inserting and removing the organiser in different bags and allowing the user to have his necessary objects organised with a greater visibility and easier access in a bag or backpack. The light allows for faster identification of the objects contained in the organiser particularly in low light environments. The studies of light, inclusive design and ergonomics are used to structure the formal and conceptual development of this project towards the materialisation of a product that will maximize its user comfort and that we aim to be accessible to the largest possible crowd. As such we intend its exposure both in academic and industrial worlds, at a global scale.

Reusable packaging design for shopping a contribute to sustainability

P. NEVES

The Project Reusable Packaging for Shopping: A Contribute to Sustainability is focused on washable, malleable, light and long-lasting packaging with specific characteristics for its convenience of use. Here, we present a study for a set of packages made essentially of textile materials to be used for the purchase of fresh foods and others. The main objectives of this project are to bring sustainability benefits by reducing the use of plastic bags and to facilitate use for buyers in shops, supermarkets and markets. Therefore, the intention is to formalize the project and to divulge it at a global scale, making the product accessible to the consumer, with the collaboration of both academic and industrial worlds.

Beyond the envelope: the architecture as a fashion communication tool

S. MENDES

De Issey Miyake a Hussein Chalayan, passando por Nicolas Ghesquière ou Virgil Abloh, incontáveis são os estilistas que reivindicam uma influência da arquitetura em seu trabalho. O diálogo entre essas duas disciplinas também está presente no uso de cenários com características arquitetônicas excepcionais – como nos desfiles Croisière de Louis Vuitton –, ou na colaboração entre algumas marcas e os chamados “starchitects”, como Rem Koolhaas com Prada. A partir de uma perspectiva transdisciplinar, cruzando estudos de autores como Bradley Quinn, Hal Foster ou Adam Sharr, esta comunicação visa abordar o uso da linguagem da arquitetura na construção da narrativa da moda. O texto comprova que essas passarelas não são apenas uma associação lógica ligada à proximidade semântica e estrutural entre as disciplinas, mas também uma apropriação do discurso da arquitetura, que se transforma em ferramenta de comunicação para legitimar a dimensão artística que a moda busca para se diferenciar.

Fashion Design Entrepreneurship: A qualitative approach

C. E. FERNANDES, M. PEREIRA, M.J. MADEIRA

Many professionals of the Fashion and Textile industry have decided to take the risk to create fashion-related businesses, creating a new dynamic in this field. With the growth of fashion design higher education programs, many professional outcomes are possible, including careers as fashion design entrepreneurs. However, the lack of information regarding business creation can be huge obstacle, as fashion designers are not prepared in that sense by higher education courses. Fashion education is still very focused on hard skills, instead of encouraging students to be proactive and forward-thinkers, yet a new generation of fashion designers has transformed past experiences and professional vision to become entrepreneurs. This study provides results obtained through interviews of fashion professionals in Portugal and abroad. This work observes this everchanging industry and suggests the rise of a new entrepreneurial reality in fashion design, as well as the multi-disciplinary people who are changing it.

Uma nova realidade para as marcas: a era 4.0 centrada no humano

MARIA JOSÉ ABREU, ANDREIA RAQUEL FERNANDES

O avanço tecnológico e as mudanças na sociedade, particularmente no comportamento do consumidor, marcaram uma nova era na área do comércio. Para além de um reforço da abordagem omnichannel (Retail 3.0) as mudanças no marketing e no retalho visam reforçar a unificação entre o mundo online e offline, com a introdução de novas tecnologias centradas no humano e no seu processo de compra. Desta forma, o presente artigo aborda e contextualiza o denominado “fenómeno digital”, que marcou a transição do Retail 3.0 para o Retail 4.0, que se foca totalmente no consumidor e no seu relacionalmente próximo com a marca. Neste apresenta-se também uma revisão literária do conceito 4.0 e dos fatores que levaram a essa transformação, com um olhar sobre o atual consumidor e o seu poder.

Pattern block design for clothing design of elderly dependent on caregivers

A. LIMA CALDAS, M. ÂNGELO FERNANDES CARVALHO, H. PINHEIRO LOPES

This paper presents part of the results of a PhD in Textile Engineering at University of Minho, aiming to understand the anthropometric and ergonomic needs of elderly women under the care of professional caregivers or relatives regarding clothing. In this paper will be presented the project process steps related to prototyping of the basic patterns used as building block for their clothing pattern design.

Textile and Fashion SMEs: the adoption of sustainable strategic models

F. MOREIRA DA SILVA

Knowledge has become the most important strategic resource in the current environment of high competition, a source of sustainable competitive advantage. The Medium and Small Enterprises (MSE's) in the area of Textiles and Fashion are lack of knowledge and of using global strategies to achieve the challenges of the new business paradigm. The work focus is in the importance of developing a systemic and integrated model for the implementation of knowledge management that can guide organizations in this practice and serve as a reference for its better understanding. The application of a strategic and operational model of business management can effectively contribute to a sustainable circular economy, consolidation of information flow, planning, control and rationalization of costs and resources in the search for competitive advantage, inducing SME managers to take the best and most innovative business efficiency decisions. This study aims to underline the importance of the adoption of an integrated sustainable model for the implementation of new strategies in MSE's in the area of Textiles and Fashion, incorporating the new paradigm of sustainability and circular economy; and working the concepts of Eco-fashion, Slow fashion and Zero Waste design at the same time, in a cross-pollination attitude.

Consumers' clothing disposal behaviour: where should we go?

J. P. BERNARDES, F. FERREIRA, A. D. MARQUES, M. NOGUEIRA

The purpose of this article is to provide an overview of current knowledge on consumer' clothing disposal behaviour and to suggest a set of comprehensive future research avenues on this topic, based on the analysis of thirty articles. The contribution of this paper is to outline four areas of future research opportunities to be further explored. First, it is proposed to develop a deeper understanding of consumers' clothing disposal decision process. Second, it is suggested to foster sustainable clothing disposal behaviours. Third, the article broadens the agenda to explore the role of external facilitators towards more sustainable clothing disposal behaviours. Lastly, it is suggested broadening the range of research design when conducting future studies on the field. This research presents a holistic and comprehensive view of literature related with consumers' clothing disposal behaviour. Also, it advances future research avenues, which may generate managerial implications for different types of stakeholders.

Online footwear customization: experts' overview

N. OLIVEIRA, J. CUNHA, H. CARVALHO

The current era of valuing and sharing experiences results from the assertion of a consumer proudly eager to actively intervene in building his or her sphere of action. This emerging consumer trend is bringing closer and boosting the relationship between consumer and industry, strongly leveraged by new technologies and digital environments, blurring the boundaries between industry and consumer/user. This translates into a profound change in creation, production, and acquisition paradigms. More and more footwear brands recognize the potential of online customization platforms. Thus, it is imperative to develop collaborative creation tools that can reduce the complexity of the process. To obtain critical information on this type of interfaces, a questionnaire was developed and applied to a group of experts. The objective was to obtain specific and exhaustive data on the researched reality and to contribute to the theoretical reflection of the collaborative design applied to online footwear customization.

Fashion retailing and consumer perception: an overview

A. P. FARIA, J. CUNHA, D. VIEIRA, P. DUARTE, B. PROVIDÊNCIA

The emergence of digital platforms raises new challenges for fashion retail. In order to meet the expectations of consumers, fashion brands need to stand up and think about new strategies to improve the experience across multiple-channels and increase the purchase intention. This paper presents a literature-based overview of the current state of research on the process and singularity of how retail contexts — brick-and-mortar stores and e-commerce websites — influence consumers' cognitions, affect, and behavior. This article provides academics and practitioners with information to shed new light on the consumption experience in physical and online environments. Furthermore, valuable insights are presented to provide a useful basis for future research on consumer perception in fashion retail.

Trend Studies in Fashion Design: Analysis of the Trend Observation Process, Industry Influence and Application Methods

SUSANA ROCHINHA, MADALENA PEREIRA, RUI MIGUEL

The trend forecasting process comprises a modern activity in which the rigorous study of trends is crucial as well as the observation of the dynamics that involve the consumer, brands and the forecasting agencies. In the current state of decentralization and fragmentation to which most of the global social conglomerates are submitted, it is a challenge to understand whether the trends contained in them and in constant movement, translate the surrounding environment or if in reality are fortuitous expressions; nevertheless, they are phenomena that can not be ignored, and their analysis gives rise to activities that are increasingly essential in most business and creative contexts.

The Street Store: the reuse of textile products focusing on street dwellers

ANTÔNIO GUIMARÃES CAMPOS, RODRIGO BESSA

This article deals with the development of the South African project The Street Store in the city of Divinópolis, Minas Gerais, Brazil. Contextualized in the approaches of social entrepreneurship and design for sustainability. The movement started in January 2014, in Cape Town, as a non-profit street store, whose objective was to donate textile products to homeless, offering them the experience of choosing a piece of clothing. In Divinópolis, the 778th edition of the project was held in the Candidés and Sanctuary Squares counting on 50 posters-hangers for clothing, bags and shoes. The project had the collaboration of 40 volunteers and 50 donors, as well as seven collection points for clothing located at stores, UEMG Divinópolis and CEFET-MG, Campus Divinópolis. Among the main positive aspects of this work, there are the reuse of textile products, the conditions for empowering volunteers, their social impact and the creation and articulation of local solidarity networks.

New Approach about integrated Textile and Fashion Design supply chains

MARIA ANTONIETTA SBORDONE

During the Courses of Textile and Fashion Design (directed by Prof. M. A. Sbordone), a team of students in collaboration with companies belonging to different territories (Kiton Donna, Cesare Attolini, Campania, South Italy) and Lanificio Leo (Calabria, South Italy) have created a creative ecosystem, where the phases of research and design alternated with those of knowledge, and analysis of the possibilities of productive interaction between training and manufacturing systems.

The criteria of environmental sustainability and valorisation of local productions have been decisive; the choice of working on wool fabrics made with traditional techniques has favored the connection between production chains of inter-regional manufactures.

Retail Design: Contaminations between commerce and culture

CATARINA CARRETO, RUI CARRETO

The present article intends to approach territories of contamination between commerce and culture, operationalized by retail design as an essential factor for the success of commercial spaces. Retail design is a specific, technical and creative area that is at the forefront of contemporary interior design. It uses a design process designed to design commercial spaces designed to promote the sale and consumption of objects. In this field, the contaminations between trade and culture are increasingly recurrent and can occur at different levels. The practice preceded the theorizing by making the present investigation relevant. In this sense, it is our intention to clarify concepts and modes of action through the presentation of examples that demonstrate this relation.

Tents, Beds and Clothing: The Evocative Objects of Contemporary Art Textiles

R. BURTON

A visual language of art textiles includes the everyday material of fabric objects, cloth and clothing that form a conceptual expression through layers of meaning. In contemporary art practice the textile as material object takes its place as an evocative object that speaks not only in signs but of social relations, time, place, identity, the self and belonging. This paper examines a 'material expressive language' in which objects are not passive but invite actions and interrelations in the work of Louise Bourgeois, Tracey Emin and Chiharu Shiota and their use of textile forms and fabric objects as material signifiers. Through a comparison of material and cultural theories of emotive objects, engaged with in a visual language expressed by creative practice, this paper proposes ways in which the textile object, fibre and cloth in contemporary culture and art practice speak in a visual emotive language of objects.

Social Networks for Fashion Brands: Consumer perspective

ELISABETE JESUS, ANTÓNIO MENDES, MADALENA PEREIRA

The fashion market is becoming more competitive, where fashion brands need to differentiate themselves in order to attract their target. The consumer isn't passive anymore and his opinion has a crucial role for brands. In addition to accessing all the information that consumer need, he also shares his opinions with other people that access the Internet and social networking. The consumer is fully informed, he stays socially connected with the world, and relies on the opinions of other users present on social networking. In this digital era that we live, Influencer Marketing is also relevant. The use of digital influencers is more and more common and it's important for fashion brands. The aim of this research is to know the technical characteristics of each social network site that allows fashion brands to maximize their use with the consumer, as well as the behavior of consumers who use these platforms. It is concluded that in Portugal the social networks Facebook and Instagram are the most used, but by different consumer segments: Instagram, young people of 15-35 years and Facebook preferentially by consumers above 35.

Collective Tissue, Connective Tissue

SUSANA MARIA PIRES

The contemporary paradox isolated body /connected body is fruitful issue for creative reflections about current system of connectivity. Textile materiality itself affects and is affected by the valences of technology.

On this paper we propose a reading and analysis of artistic practice such as Martha Araújo's, Lygia Pape, Franz Erhard Walther, Lucy Orta', Tomas Saraceno, Ernesto Neto, Thecla Schiphorst, Francesca Perona and Nicholas Stedman, when the textile stands out as a communicative interface. We highlight in visual arts how "habitable textile" has emerged as a support for performance and performativity objects conceptually relevant to questioning interpersonal relationships.

Fashion design and art: crossing of contemporary creative processes

R. GADDI

When the creative paths of fashion design, haute couture and art overlap, interesting questions arise on the relationship and border between design and art; therefore, between a project linked to the objective functionality and the free expression of the subjective identity. After suggesting a flexible framework of the phenomenon, made by historical suggestions and not a perfect chronological sequence, some examples that have already been largely historicized will be presented, as well as the work of more contemporary fashion designers as Martin Margiela, Hussein Chalayan and Iris Van Herpen. This text will investigate this border area, trying to understand if these intersections can give rise to innovative scenarios for both sectors, focusing on the evolution of the relationship between art and design.

Between Nobility and Magic: Power and Costume in Fantasy Films

CARLOS M. FIGUEIREDO, RAFAELA DIOGO

This article seeks to understand how, in a narrative; cinematic and visual fiction - in this particular case, a real action movie - the costumes and its textiles - with all their inherent characteristics and particularities - can convey power and magic to the protagonists, making them the focal point towards where all the narrative, world building and the viewer attention are drawn to.

The Aesthetics in Fashion Design and Cultural Studies

THERESA BECO LOBO

In this paper we will explore the notion that beauty—an emergent value of human attention and emotional attraction—can help fashion designers plan and craft products that offer a rewarding, memorable encounter.

Within fashion design studies, aesthetics continues to be one of the least-examined areas that deserve serious attention, and the research methods and interpretive techniques used by cultural studies can serve as appropriate models. The paper offers an overview of how cultural studies research may inform a specific aspect of fashion design, namely aesthetics. It also suggests that formalist evaluations of aesthetics and meaning, though valuable, are incomplete and need to be supplemented by other interpretive strategies that include social and cultural concerns. Engagement with the discourses outside the discipline can only enrich the discourse within, providing us with better tools for understanding the extent of the impact design has on the everyday lives of people.

The woollen manufacture industry in the Azores islands (1850-1930)

PAULO SILVEIRA E SOUSA, MAFALDA PACHECO

In Portugal, in the second half of the 19th century, small-scale production of textiles and wool was in competition with cotton fabrics, which invaded even the most peripheral rural areas. Industrial production had its own circuits, offering more products at a better price. It flowed to the urban centers and from there, it radiated to the rural areas, feeding a reasonable commerce in villages and small towns, all over the country. However, the domestic industry was often ignored «because its products rarely appeared in the markets». Our aim is to study the forgotten and hidden activity of the production, spinning and weaving of wool, that was, as we will argue, of great importance in the context of rural farms and communities. This paper will focus on the Azores archipelago, an insular region where the weight of the cattle, artisanal production of textiles and agriculture were strong. Domestic production of textiles stayed important through time, proved its economic efficiency and its linkage with peasant communities.

Património Têxtil e envelhecimento ativo; uma abordagem sociocultural

M. GRAÇA MOREIRA

Esta comunicação apresenta parte de uma investigação sobre a preservação do património cultural e o envelhecimento activo. O património material e imaterial relacionado com os têxteis artesanais, que utilizam um conjunto diversificado de fibras de origem vegetal e animal, é um bem que deve ser preservado em Portugal, pela sua diversidade como valor cultural e importância para o desenvolvimento local. Num país com uma população idosa, cada vez maior, os conhecimentos empíricos que este grupo etário tem, podem ser valorizados através das universidades seniores. Esta investigação analisa um conjunto de US que se localizam em áreas de baixa densidade junto ao rio Tejo. No caso concreto dos têxteis artesanais já há alguns exemplos do seu ensino/aprendizagem a ser feita no âmbito de algumas classes destas Universidades Seniores.

Tapestry and Synthesis of the Arts: Italy and Portugal in the XX century

ANA MOREIRA DA SILVA

In this paper we search for establishing relationships between Italian and Portuguese Tapestry, in the middle of the XX century, from the study of two important manufacturers: MITA - Manifattura Italiana Tappeti Artistici and MTP - Manufactura de Tapeçarias de Portalegre. The artifacts produced by MITA were designed by some of the most prestigious Italian artist and architects of the time. The same phenomenon occurred in Portugal with MTP tapestry designed by many known Portuguese and foreign artists. Through this research, we also can find similitudes, in both countries, about the 'Synthesis of the Arts' idea which entailed collaboration among painters, designers and architects. In the case of MITA, numerous artists worked together on the interior design of transatlantic liners. In Portugal we find this 'Synthesis of the Arts' concept applied in several public buildings where MTP tapestry was an intrinsic part of their interior design.

Design Textile Accessories: Connection between Portuguese Felt and Silk

ANA MARGARIDA FERNANDES

The present investigation aims to deepen the possible reutilization of textile materials, resulting from the production of carded fabrics (felt), embroidered with silk thread.

It was based on an in-depth study of the identification of real problems found in the region's silk and silk producers.

The use of the design practice in the design area allows us to use fabrics produced in the industry with specific defects by creating a line of accessories with a distinctive and identifying character of a certain region that produces such specific fabrics in the carded area.

Considering that the design aims to find solutions to the problems encountered, the following hypothesis was formulated: Is it possible to use a dynamic between accessory design and the textile industry in order to develop a collection of hand bags using stained fabrics? In order to test the hypothesis, a methodology of mixed, non-interventionist and interventionist research (action research) was used to answer the starting question.

Clothing for Leisure Wear with Fashionable and Functional Wool Fabrics

B. REIS, R. MIGUEL, L. S. RIBEIRO, M. PEREIRA, J. CARVALHO

The focus of this work is to connect functional blended wool fabrics, to aesthetics and clothing design for lei-sure wear, making an exchange among the approached concepts.

Considering that, this study intends to approach the tri-laminating process, composed with a membrane, to give the final fabric the functional component, combining after with fashionable aesthetics in clothing and the leisure movement. Also, were explored the potentials of wool fabric associated with leading-edge technologies already in the market.

The findings of this project were presented as the first results: four pieces of clothes were developed and manufactured. In the manufactured garments the application of fashionable and functional blended wool fabrics in apparel for leisure was made, integrating functionality successfully in fashion in everyday style.

Pompeii and the renewed thread. Antique textures and contemporary narratives

A. CIRAFICI, C.C. FIORENTINO, P. ARGENZIANO, A. AVELLA, L. MELILLO

The vast collection of textiles, fabrics and fibres from Vesuvian sites, kept at the MANN (National Archaeological Museum of Naples), represents one of the most interesting and, until now, less explored bequests of a not marginal aspect of ancient culture, among whose 'folds' it is possible to trace important elements of an history that crosses the sphere of production, distribution, habits and society of Pompeii and, more generally, of Roman culture. The contribution intends to present the first results of a work of research and documentation on this precious textile material and the task of reinterpreting, that the research group is carrying out in order to illustrate a process of dissemination and cultural promotion of the complex knowledge that is kept in it.

The Solar Vintage case: can the material of the design contribute for the preservation of traditional techniques?

I. BIEGER, A. TEIXEIRA DE SOUZA, J. PEREIRA

The importance of the craft techniques in the history and customs of a people is evidenced in the analogies of making it. Ways of living, identities and customs are evidenced in the crafts techniques. Traditional techniques, mainly the traditional ones, bring up practices forgotten all through the times, or mostly currently uncommon. The design can facilitate the preservation of the crafts techniques, both working as the improvement of a product and as the catalyser of the product itself.

Practice, in general, stops being a single experience. Products stop being something dull and bring up the real need of innovation. The balance between tradition and innovation has been found in the work of the Spanish designer, Elena Corchero. In the works analysed, the craft technique is decorative and practical. As a first approach, one understands the function of the object as a fashion object. Only a after a deep look, do we realize its practical function as feminine and unique products. The designer, that joins technology to the crafts practices, accomplishes the objective of improving and innovating through the traditional technique.

The Slav Influence on Russian folk dress

LUCIANA P. BENETTI, M. SÍLVIA BARROS DE HELD

Russian folk art is rich in aesthetic elements and is a research source for many approaches in the field of design. The objective of the present study is the identification of Slavic features in Russian folk clothing from the eighteenth and nineteenth centuries. The research sources are the bibliographical review, and the compilation of the images gathered during field research in 2016. The clothing function emerges since the relation found between clothing and Russian folk art represents an extensive communication system present in the object of study. The Slav heritage codified this communication, used until the mid-twentieth century.

Entre o ser e o parecer, o toque (im)perfeito da moda

MARGARIDA AMARO

A mais célebre cena do Génesis representada por Miguel Ângelo na Capela Sistina dá conta do momento em que dos indicadores de Deus e de Adão brota a centelha da vida. Este é o toque original que instala a ordem do cosmos. Concluída a Criação, já no Éden, Adão e Eva provam o fruto interdito da Árvore do Conhecimento, descobrem que estão nus, cobrem-se e, antes de os expulsar do Paraíso, Deus veste-os com peles de animais. Para além do poder duradouro do story telling, a história continua a suscitar a atenção, transportando consigo questões pertinentes. Objeto utilitário que protege das intempéries e outros incómodos, segundo Greimas (1987, p. 84), o vestuário apenas adquire sentido quando “veste” a mulher e preenche a função do parecer: obstáculo e desejo de transgressão, o vestuário é criador de um espaço onde o interdito se instaura como sentido por uma espécie de “visualidade imperfeita” que não é mais do que a forma distanciada do tato, a mais profunda das sensações a partir das quais se desenvolvem as paixões do “corpo” e da “alma” conducentes à esthesis. Oscilante entre o ser e o parecer, é nesta imperfeição que a moda opera de acordo com os seus paradoxos - o tempo, a estética, o estilo, as formas de vida - e de que daremos conta nesta comunicação.

Bioinspired textiles that raise awareness about domestic air pollution

ELENA BREBENEL

This paper presents the design and evaluation of interactive textile artefacts that raise awareness about domestic air pollution (DAP). It aims to establish an approach to raising awareness that inspires people to improve their homes, without making them anxious about the problem and its effects on their health, therefore contributing to their well-being. The research draws inspiration from scientific literature, with a focus on the blue tit (*Cyanistes Caeruleus*) female bird nest behaviour. It utilizes bioinspiration as a way to abstract design principles from biological models and apply them to the design of artefacts; and the design of rituals, as this allows to create experiences that consist of repetitive actions that have meaning which can stimulate awareness. The research stages include: developing the design brief, generating textile samples and artefacts, and testing by undertaking two adoption experiments, and using qualitative methods of data collection and analysis. The evaluation study with nine participants showed the potential of bioinspired textile artefacts in raising awareness about DAP, and in generating a sense of well-being for the participants.

Postpartum cesarean underwear design as a recovery in the healing process

D. P. BEDUSCHI, C. JORDÃO, R. PUPPIM, L. M. ARRUDA, A. P. SOUTO

This article deals with questions related to the design and modeling of postpartum cesarean lingerie that aims to assist in the healing of the superficial layer of skin. This research is part of the work that also includes analyzes of microencapsulation of the essential oil (EO) for textile impregnation and innovation approaches in the Portuguese Textile Industry. The main objective of this research is to promote improvements in ergonomics, providing physical and psychological comfort to the user. To achieve these objectives, it was necessary to develop research and experimentation in patternmaking. Thus, this study presents the initial result of these experiments, which intends, in addition to providing comfort to the users, contribute to increase the competitiveness of the textile industry through incremental innovations.

Copaíba essential oil microencapsulation: production and evaluation

L. M. ARRUDA, M. TEIXEIRA, A. I. RIBEIRO, A. P. SOUTO, C. A. CIONEK

Chitosan microcapsules embracing copaíba essential oil as the active ingredient were prepared by ionic gelation method. The textile material jersey knit, composed mainly by cotton, was impregnated by the solution, using the simple immersion method. Through scanning electron microscopy, the produced microcapsules were characterized in their morphologic composition. Microcapsules have been shown to be elongated, with diameters between 971.5 nm to 1.46 μm . By the thermal analysis was possible to verify the behavior of the microcapsules, and their bond breakage temperatures. It was also possible to verify, through the loss of mass of the material, that the oil had no residue and that microcapsule's residue refers to chitosan. Such experiment indicates the potential of biopolymers as chitosan, in the result of encapsulation efficiency of copaíba oil. Accordingly, validating great potential as a healing enhancement agent applied in textiles, considering the properties antiinflammatory, antimicrobial, and analgesic of the related essential oil.

Development of textile structures biodegradable and antimalarial

C. PINHEIRO, N.BELINO, R. PAUL

Today more than ever, mosquito-borne diseases have a major influence on the quality of life and socio-economic development of a large part of the human population. Malaria is one such diseases. Responsible for reaching almost half of the world's population in about 100 countries, its occurrence has a tremendous impact on the human health of 214 million people, being the cause of the death of more than 438 000 people, and, also, to significant economic losses. Recent increases in drug resistance (drugs and repellents) and climate change, have led this disease to spread into new geographical areas, especially in Europe's outskirts. Aware of this situation, the authors sought to develop a new biodegradable and antimalarial technological solution, through the functionalization of PLA filaments. It is expected that, this new proposal, may contribute to the diminishing of the impact of malaria on human health. Bearing this purpose in mind, this research work aims at the development of a new piece of cloth made with an entirely new family of PLA fibres, specifically designed. Those fibres were embedded with internally developed microcapsules containing a natural repellent agent – schinus molle – added during the extrusion process. Based upon this new fibre, three knit structures were produced and the repellent efficiency and washing resistance were assessed.

Otto: textile interactive toy for autistic children

A. B. ALENCAR, J. OLIVEIRA, L. SAMPAIO, A. P. CATARINO

The present study try to combine the ludic act of play with the process of cognitive and emotional development in children on the autistic spectrum. The methodology of Munari (2008) will be used with the intention of developing a new concept of product. The prototype is called Otto and consists in an interactive toy in the form of an octopus which associates textures, colours and sounds to stimulate different senses to help with the development and assimilation of knowledge.

Advanced textiles: sharing disciplines, project fields and practices

M. CARLOMAGNO, R. SANCHES, R. VENEZIANO

The paper analyzes the various project areas in which the integration between design, engineering textile and chemistry produces advanced reasearches and new products in the manufacturing fiels. Through the critical analysis of case history, in the health-care, sportswear and underwear industry, will be describes the design oriented strategies and the field of interest.

Experimental processes of knowledge exchange for knitwear design

M. MOTTA

Knitwear is an area of growing interest for fashion and textile designers, that goes far beyond artistic creation as it deals with the complexity of peculiar realization techniques and with a very articulated industrial sector. What can scientific research do in the field to make young knitwear designers closer to the knitwear industry and to effectively answer the needs of such a specific sector? The paper describes the premises, the undertaken actions and the results of an experimental research-teaching activity held in the School of Design at Politecnico di Milano in collaboration with Ghioldi, an Italian printing and knitting company. Part of a wider doctoral study, the reported experience put in touch pure creativity with manufacturing processes, university with industry and the knitwear field with the one of textile printing, with the aim to improve the exchange of knowledge through and towards design-driven innovation on processes, products, and teaching methods.

The Use of Technology to Unify the Areas of Biomechanic and Textile

LUCIANO NEIVA, JAQUELINE NEIVA, LUIZA DE FIGUEIREDO PINTO LORENZETTI, DIB KARAM

The aim of this article is to propose a union of the knowledge of the areas of Biomechanical and Textile. An exploration in a qualitative and observational way of some kinematic markers used in Biomechanics. The work was organized in five phases: a first stage in which an introduction to the area in focus is presented: Biomechanics. The second one addressed Cinemetry and the use of reflective markers. The third on the use of technology in the Textile area. The fourth on creating a solution to the problem presented. Finally, in the fifth stage, it was presented with basement in previous phases and indications for future studies. Palavras chave: tecnologia têxtil; Educação Física; marcadores refletivos.

Smart & Safe. Design for performative Workwear (S2PWD)

MARIA ANTONIETTA SBORDONE, LUIGI MAFFEI, MASSIMILIANO MASULLO

The paper presents an interdisciplinary research project (under evaluation) focused on the creation of a Workwear System(S2PWD) that integrates smart and wearable equipment to raise the safety and protection level of the worker in workplaces. WwS provides an “Active Security” through the use of sub-systems of control and diagnostics for the prevention and risk assessment.

Disrupting digital making for seamless knit design

R. MOORE, A. SMITH

Since the introduction of seamless knitting machines by Shima Seiki; Wholegarment® in 1995, the digital technology has been globally adopted. However, the extent of the design capabilities of the seamless knit technology remain vastly underutilised, due in part to the complexity of the programming system and the disconnect between designers and the technology. This project aims to investigate the question; How can the complex seamless knit automatic software be technologically exploited to expand potential design outputs? A series of practice-led investigations drive the study through explorations of extreme shape, asymmetrical forms and the juxtaposition of hard and soft surfaces in knitted textiles. Approached from the position of a designer-maker this practice-led research harnesses an action research methodology whilst applying a digital craft approach to textile making. The focus of the project is the automatic seamless knit software and modes of making that disrupt the linear design process to extend the outputs beyond the standard apparel shapes. The practice-led outputs created provide opportunities for seamless knitted textile knowledge to shift into discipline areas where it is currently unknown or underutilised.

Comparative study of the comfort promoted by the use of garments made of polyamide and polyester fibers during the practice of running

C. O. P. COUTINHO, A. Y. S. DUARTE, R. A. SANCHES

Comfort is a pleasant state of harmony in the physiological, psychological, neuro physiological and physical aspects between the human being and the environment (Slater, 1986). According to Bartels (2005), the textile comfort is based on three axes: elasticity, thermal regulation and touch. The objective of this study is to analyze and measure the main differences related to the comfort promoted by the use of fabrics made from polyamide and polyester fibers used in the manufacture of sportswear, specifically for running. The following physical tests were made on the fabrics: determination of the linear density and determination of thickness. In vivo tests were performed to verify if the athlete can perceive the performance difference between the two articles. The analyzes and evaluations carried out within this research project considered only the sporting modality of running, to verify the influences and advantages that the clothing made with each of these fibers possesses to positively or negatively impact the performance during its practice. Experimental results have shown that t-shirts made with polyamide yarns have some advantages over those made with polyester yarns.

The use of craft techniques as a new creative mean in fashion in Brazil

C.E. BERTOLUCI, R.A.SANCHES, A.Y.S. DUARTE

Slow fashion is a practice that aims to recapture the manufacturing of the textile chain, valuing traditional crafts as means of creative design and slowing consumerism. It's a counter practice to fast fashion and it encourages learning traditional craft techniques, like knitting and crochet. This work focuses on how these traditional techniques are inserted in the current creative manufacturing practices. The creative practice used a brainstorming, the morphological chart and the Pugh method to experiment new fashion products using knitwear and circular knit waste. The results showed that the methodology can be used to develop more sustainable and innovative fashion products.

Lightwall: a story in textile

A. BARTH, M. DE CARVALHO, P. GOMES, A. P. CATARINO

The ludic aspect has a crucial role in the development of the individual. For this reason, creating an environment where children can interact and use their imagination is a key stimulus for the improvement of their cognitive and socioemotional skills. Taking this into consideration, the present study proposes the design of a new concept of children's product. Lightwall is an interactive wallcovering, that uses multi-sensorial resources, introducing a new approach to literature.

Smart textiles for architecture: embedded Signs + Information

ANA CLAUDIA D'OLIVEIRA

Signs and Information are everywhere. In architecture, the fixed elements that help people to circulate in spaces need to change often. If a new technology with sensors could be introduced into architecture, adding new functions and helping constant changing, this action could probably be a new sustainable measure for our future. Adding to a textile all the needed information can, on the one hand, be observed or, on the other hand, produce sounds to be captured by elderly or blind people.

In public buildings, where interventions need to be fast and active, a new world can embed technology in architecture to meet sustainable open solutions and goals. The internal application on buildings may be the beginning for a real future connection into textile and the 'Figure of the Architect.'

The use of textiles in building rehabilitation: brief bibliographic review

BÁRBARA MOURA DIAS E SILVA, GIANNI MONTAGNA,
CARLA MORAIS, CRISTINA CARVALHO

In many countries, the investments in building rehabilitation tend to increase and exceed the investments in new construction. Therefore, studies concentrate efforts to introduce new methods, materials and technologies in civil construction. Among these materials, the textiles are emphasized, due to their significant and increasing applicability in architecture and engineering solutions. Thus, this paper proposes to perform a bibliographic review on the advantages of the use of textiles in building rehabilitation interventions, with the aim of discussing the potential and future perspectives of this combination. The literature has shown four main uses of tex-tiles in rehabilitation: (i) structural reinforcement, (ii) architectural and structural membranes, (iii) environmental comfort and (iv) smart textiles. Along with the conclusions, it was possible to confirm the potential of the proposed subject, which represents a significant and multidisciplinary field of investigation and the need was highlighted for further studies on the disadvantages of using these materials.

Sustainable textile roofs in Architecture and Design

C. ALHO, V. MATOS

Sustainability has become a key-element in Architecture. Besides the optimal resolution of the binomial relation between Resources Management and Quality of Life, Sustainability relates to fundamental aspects, such as Continuity and Ethical responsibility towards the past and next generations. Textile architecture uses membranes as main material for its structures and roofs, and is 100% recyclable. They are used in diverse architectural projects, for instance hotels, shopping centers, airports, sportive stadiums, and in the shadowing of streets. Nowadays tensile shade structures are often used in urban rehabilitation and renewal projects, designed for urban degraded and neglected spaces, in North American cities and in other parts of the world. These projects give new spaces for the citizen, which regains his right to the city and its spaces and recuperates interacting zones fundamental to the community.

From Tectonics to Textile Polymers of New Architecture

NUNO CORTIÇOS , TARASOVA IRINA, ALEXANDRINO DIOGO, ANTÓNIO MORAIS

The article discusses the physical properties of textile polymers in modern architecture and the implications of their use in design methodology. Within the existing concept of two global styles in architecture theory (classical style and modern style), the principles of textile modeling are presented as an innovative principle in the transition to the architecture of a third global style, when the emergence of innovative materials make the key to the art of creating new architectural languages with their own specific tectonics.

Textile materials allow to create new forms of buildings. In the language of architecture there is a term “plisse”. In the language of fashion and textile design there is also this term. Shape is same. Principle of creation of the form is indeed. Therefore parity one of the plastic forms of the textile design can be used in the creation of the shape of the buildings using textile and plisse form of the textile. Plastic textile features can be used in the creation of architectural forms.

The textile envelope building - as a promoter of the environmental comfort of the building

JOSÉ AFONSO, LUÍSA REIS PAULO, ALEXANDRINO DIOGO, ANTÓNIO MORAIS

The article proposes the investigation of techniques that aim to promote environmental comfort through the adoption of textile screens. These “kinetic”, adaptive and reactive surfaces are generated and supported by light structures, based on an active strategy of adaptation to the environment.

This logic of intervention allows not only plastic customization of existing buildings, but also improve their environmental comfort.

The technological advances resulting from the application of the digital tools to the architecture allow the viability of changing textile surfaces, whose geometric variation, both during the day and throughout the year, allows to control the sun exposure and consequent the resulting energy gains.

The textile air convector - as a promoter of the environmental comfort of the building

MARIA JOÃO DELGADO, ALEXANDRINO DIOGO, JOSÉ AFONSO, ANTÓNIO MORAIS

In the scope of the Center of Investigation of architecture, Urbanism and Design of the school of Architecture of Lisbon (CIAUD) began a research plan regarding the potential of the use of the textile screens in the building.

This article presents the proposal of a constant theme in the research plan to be developed within the framework of the CIAUD.

The use of “textile screens” in the building in the past has generally been limited to the shading field of the building envelope, however, we can extend its application by exploring possibilities in the field of air conditioning and electricity production, above all on the facades.

Recycling of glass waste to fiberglass production

JOÃO PEDRO CARMO FIALHO, ALEXANDRINO DIOGO, S.M.SHAVALEEVA

Glass waste around the world forms large supplies of indecomposable garbage. Chemical corrosion of a cullet in storage places leads to the increase of ?? of the soils and underground waters. Production of fiberglass from the waste of glass according to the Waste Into Income principle is a way to reduce the harmful impact on the environment as well as the raw materials, energy, and accompanying expenses economy. Separate collection and processing of the glass waste have a high potential for development in many countries.

Implementation of additive manufacturing technologies in apparel production

MANUEL JOSÉ DOS SANTOS SILVA, SUSANA MARQUES, CLARA ELOÏSE FERNANDES, RUI ALBERTO LOPES MIGUEL

The fourth industrial revolution that is based on the combination of intelligent production systems and advanced information technologies, perceives the additive manufacturing industry as an essential ingredient of this new era. Its beginning revolutionised the market and provided development to various sectors. Following this example, the fashion industry saw in its implementation the opportunity to regain the long-awaited innovation. However, after several approaches, its application has faced several obstacles due to the lack of materials, technologies and research directed to the textile industry. Because of the difficulty in acquiring comfort and flexibility inherent in clothing, the fashion industry has advanced more towards footwear and jewellery with this technology, with annual revenues of 3D printed hardware, materials, services and software used in jewellery expected to reach \$ 900 million by 2026 (SmarTech, 2017). This study hints for specific needs of the fashion and textile industry such as components and procedures.

Braille textile stamping: an inclusive approach to Brazilian surface design

RODRIGO BESSA, ANA MAE BARBOSA

This article presents a field research involving the visually impaired in order to understand the real need and best solution for the creation and interpretation of surface design in clothing. Since individuals with partially or totally compromised vision generally cannot cope with the textile stamping. After the field work at the Association of Disabled Persons of the West of Minas (A-DEFOM) in Divinópolis, in the state of Minas Gerais, Brazil, prototypes of clothing were planned, created and developed with an inclusive approach by a group of students from Divinópolis College (FACED). Through a project methodology, the students developed a collection of Braille embossed shirts, aiming to facilitate the interaction, discussion and understanding of the surface design context, so that both the ones who can see well and the ones who cannot could read of screen printing.

Vision and touch: Textile surfaces for unsighted individuals

L. PINA, J. LUCAS, R. MIGUEL, P. DUARTE, P. MARTINS

With a theoretical approach based in scientific papers it was made a search of studies related with the relationship of visually impaired individuals to fashion products considering the textile material, with the purpose of a better understanding of these consumers and what leads them to the purchase act. It is necessary to understand how important is touch perception for the buying decision of a fashion product taking into account the texture of the surface, quality and colour of the fabric and secondly how all these elements are indeed influencers of the consumer's purchase decision. Therefore, it was made a selection of several investigations that can be an important contribution not only for this paper but also for further investigations, so this initial approach was in fact a starting point for future investigations considering clothing, unsighted individuals and their relationship with fashion brands.

Reviewing literature on innovation, entrepreneurship and Industry 4.0: as additive manufacturing technologies will soon be disruptive

A. MATOS, D. J. GARAND

From the context created by new disruptive technologies in the advent of the Fourth Industrial Revolution, the present work is a concise literature review in which the objective was to delineate the topic of additive manufacturing, encompassing not only its concept and entrepreneurial challenges, but also the opportunities that arise through its many forms of application. This study contributes to the literature by reinforcing the relationship between firms, entrepreneurs and innovation, as well as their link with the identification of new opportunities and business models.

The Usage of Computer & Draping to Design Motifs & Clothes Inspired by Costumes of Najd City

SALIA HASSAN A.KHAFAJI

The researcher aimed to use “Photoshop” & “Auto CAD” to highlight the creative aspects of the decorations inspired by the heritage of Najd and learn about the technical intricacies adapted in their preparation. The researcher developed a set of hypotheses as field solutions to the research problem. Also, the researcher studied, chose the samples and tools and collected the required data in a precise and an organized manner. After analysis, the results showed statistically significant differences between the four decorative designs in achieving the aesthetic & the innovative aspect. Based on the consumer’s opinions, the four dress designs also displayed variations in achieving the functional aspect

Arquitetura: Tecendo com fios de luz

A. I. QUINTAS, MÁRIO SALEIRO FILHO

Qualquer objeto arquitetónico dispõe de uma superfície à qual se podem atribuir propriedades de trama têxtil na sua porosidade. Partindo da premissa de que a arquitetura é uma atividade que produz objetos complexos, os quais – ainda numa analogia com caráter orgânico – dispõem de uma epiderme externa com características de porosidade que constitui o seu limite. A partir destas efetuam-se trocas com a envolvente que dizem respeito à luz e ao ar, as quais puderam, por razões climáticas, de tradição, ou simplesmente de partido estético ser aplicadas. Foi neste mesmo contexto, que se tentou-se encontrar, no estudo que se apresenta, uma linhagem que parte da arquitetura vernacular de raiz mudéjar, passando pela arquitetura o movimento moderno, com a utilização do brise-soleil e dos cobogós – em países como o Brasil, Portugal ou as colónias portuguesas – até culminar na produção de edifícios, com caráter contemporâneo datando tanto de finais do século passado como do presente século.

A novel environmental solution: innovative wool-rice straw yarn

S. HEFFERNAN

Environmental and economic reasons inspire research of natural alternative textiles with the ability to make a difference in the environment. Entrepreneurs Bernadette Casey (Wellington) and Sally Shanks (Gisborne) of The Formary, conceptualised the idea of transforming rice straw waste and strong NZ wool into yarn proposing the woven fabric had the potential to help reduce China's massive air pollution problem caused by burning waste straw after the rice harvest and to use all of NZ's mid 26 to 30 micron range wool (Casey, 2013). The blend development was facilitated with Beef and Lamb and NZ government funding and research and design at Textile Design and Institute of Fundamental Sciences, Massey University, and yarn engineering at WoolYarns, 2011 - 2014 (Crossley, 2012).

Prototyping Textiles for a High Chair - Academy and Industry Interactions

C. SALVADOR

In a product design research, which includes a children's high chair project, it was necessary to develop a com-fort cushion for children from 6 months up to 3 years of age. This children's furniture project seeks for solutions more adapted to the child, both physically and psychologically, enabling an extended product's life cycle and contributing to sustainability. The starting point was the search for a bamboo lyocell fibres' producer for the cushion's cover, as well as a producer of biopolymer or polymer foams for its filling, both from Portugal. This study reports a literature review based research, contacts with producers and the prototyping process of the comfort cushion, describing interactions between academy and industry and including a partnership with the portuguese company TintexTextiles. Although bamboo and biopolymers weren't available, it was possible to produce the prototype and to conclude that connections between academy and industry may be an added value to every research project, which includes a product's prototyping.

Design for Sustainable Fashion: a S.PSS Scenario for Fashion

B. AZZI, C. VEZZOLI, G. M. CONTI

Fashion is recognised as one of the most unsustainable system, being characterized by both severe environmental impacts and unfair working conditions. In this framework, the article describes a sustainable promising scenario for fashion based on Sustainable Product-Service System (S.PSS), recognized as a model in which the producer/provider's economic interest is to design and offer low environmentally affecting clothing solutions. This paper describes the scenario development process (part of the MSDS method). a) Strategic Analysis: desk research on "clothing care" system's environmental impacts; definition of environmental design priorities; and S.PSS "clothing care" best practices analysis. b) Scenario design: S.PSS ideas generation applied to clothing care; promising S.PSS ideas clustering aiming at identifying the most effective polarity diagram; design and formulation of the scenario 4 promising visions.

New sustainable processes in textile industry: extraction of natural dyes

P. M. S. SILVA, T. R. FIASCHITELLO, R. S. QUEIROZ, S. A. COSTA, S. M. COSTA

Due to the increased environmental awareness and the great impacts caused by it, the textile industry has re-thought its processes and products. Bioeconomy presents itself as a way for the industry to innovate and be more sustainable through the use of biological resources, such as natural dyes for textile dyeing. This review article deals with the main extraction methods of natural dyes and also the importance of the bioeconomy in the textile industry, aiming at a lower environmental impact in the stages of dyeing.

Colour and Ecological Behaviour in Textiles: a path to sustainable choices

C. DELGADO, G. FORMAN, N. ALMEIDA, S. JAMSHIDIAM

This paper is based on a group work develop in Master Studies in Production Design. It questions the relationship between colour preference and ecological conscience, regarding textiles. The universe studied and the sample collected were 112 people, from 19 different nationalities, using GoogleForm and Facebook. It was relevant to obtain different nationalities in order to question whether there is a relationship between individuals of Portuguese or foreign nationality, also different gender, and ecological behaviour. For the data analysis was used Statistical Package for Social Sciences (SPSS). Evidence suggests differences between gender and it also confirmed that having children and traveling alters ecological awareness. In addition, it indicates that ecological awareness influences ecological behaviour. It was verified that the level of consciousness was overevaluated by the cases themselves when compared to their ecological conduct. Results also suggest that there may be a tendency between an individual ecological behaviour and his preference for colour when choosing home textiles.

Reuse and recycling of Solid Textile Residues (STR)

MARIA DE LOURDES COUTO NOGUEIRA

The following article approaches an urban environmental issue related to the inappropriate disposal of the Solid Textile Residues (STR) sourced by the clothing industry sector in Divinópolis, which is the most influential city regarding fashion and the apparel industries in the state of Minas Gerais, Brazil. One of the goals is to know the city's environmental backdrop associated with the apparel industries, identifying its social acting and its responsibilities with respect to the generation and final disposal of the solid residues stemming from this economic segment in order to conciliate production, consumption, labor growth and income with the preservation and protection of the environment. The article is structured on the following topics: the city's context and the apparel industry, its production process and the STR generated, the STR's management in Divinópolis as well as its alternative uses for recycling aiming for sustainability and its environmentally adequate disposal.

Fashion and Tapestry – A Dummy-loom as a Method of Modelling Clothes

C. MORAIS, M. VELLOSO

Tapestry is a long existing art in Portugal, mostly directed to a special kind of use. The current study aims at showing that either as a wall product or a comfortable artifact to cover the floor, its manufacture techniques can also contribute to the creation of pieces of clothing. Combining the Fashion production to tapestry practices is not new, but doing it grounded on a mannequin, as if it were 3D modeling, is actually pioneering and timeless. These techniques provide a durability that is suitable to slow down consumption and even to the possibility of offering personalized products, thus turning this kind of production into something more sustainable by reducing the waste of raw materials as well as also supporting the legacy of the material Portuguese culture, by means of its textile distinctive characteristics.

Creation of Optimal Combinations of Sorbents to Eliminate Excessive Amounts of Metals From the Wastewater of Textile Production

ANTÓNIO MORAIS, YULIA A. TUNAKOVA, RASHAT I. FAIZULLIN,
VSEVOLOD S. VALIEV, GULNARA N. GABDRAKHMANOVA

O artigo discute as propriedades físicas dos polímeros têxteis na arquitetura moderna e as implicações do seu uso na metodologia de projeto. No âmbito do conceito existente de dois estilos globais na teoria da arquitetura (estilo clássico e estilo moderno), os princípios da modelagem têxtil são apresentados como um princípio inovador na transição para a arquitetura de um terceiro estilo global, quando o surgimento de materiais inovadores se tornam a chave para a arte de criar novas linguagens arquitetônicas com tectônicas próprias e específicas.

The Arachne myth: Testimonials of textile materials culture through art and iconography in antiquity and in the middle ages

HERBERT GONZÁLEZ ZYMLA

Arachne was, in the classical world, the character in mythology who invented the thread and the loom. The iconographic representations that show the punishment that the Goddess Athena infringed upon by transforming it into a spider, are an interesting testimony of the textile material culture throughout history, from the vertical loom of the ancient world, to the femme fatale of the contemporary world, going through the horizontal loom and the embroidery frame of the Middle Ages and the Renaissance. The study is proposed identifying such iconographies and their usefulness for the studies of the European identity, in the classical and medieval art.

Macau Fashion Industry in a Globalized Era: An Educational background Perspective

ANA CARDOSO

Macau is a city where culture, ethnicity and, aesthetics has become increasingly diverse. This ex Portuguese colony is a gambling city, is considered by the locals the Asian's Las Vegas. Besides casinos, Macau has shopping sites, where we can find international luxury brands and local designers' brands. Throughout the 21st century, cross-cultural and historical influences had a profound impact upon the local fashion market. Recent years' local government, creative industries, local universities, and the educational institutions support the local fashion market. They contributed with more university degrees, professional courses and local fashion shows to expand the local fashion industries. This study analyses how local government and educational institutions are an important anchor for new fashion designers. They have been supporting the market financially, offering a promisor career for the young generations, and have also been supporting local brands to flourish on markets outside Macau. This study also contributes to understanding how the educational institutes adapted to the local market. With a small sample of interviews, we conclude that nowadays the courses are more focused on technologies and creative design. This allowed graduate students to get in the market with a more complete potential.

Less is More

HELEN MCALLISTER

Out of the adversity of 'Austerity' there was the sobering wake-up call that change was an imperative. Yet Austerity has not become a thing of the past, nor has it made for a more 'responsible' society. Anxious anxiety permeates all aspects of contemporary life with no obvious coping mechanisms to adapt to these pervasive conditions. The sense of 'well-being', more than ever, is the priority. For many it is the intimate engaging in making, finding a relationship with making processes and materials that regains some equilibrium that herald well-being values.

I am a practitioner rooted in embroidery and I locate my practice in that of the Applied Materials domain. I argue that the making methodologies by their very nature can be transformative, free from prescriptive conformity. It has enabled and informed my personal experiential understanding of a practice and enabled and informed the changing needs of an educational landscape.

Study of the organizational contexts that affect the designer's creativity

J.A.B. BARATA, R.A.L. MIGUEL, S.G. AZEVEDO

This paper presents a review of the literature on organizational creativity using variables from both physical and non-physical contexts. Creativity is an important research topic to which the new millennium has brought numerous contributions, allowing a better understanding on business environment. Therefore, across the time, organizations started to share a greater concern on how to apply practices that could enhance the creativity of their collaborators. It is commonly known that creativity contributes to improve companies' competitiveness becoming them also more sustainable. The Portuguese Textile and Apparel Association (PTAA) has encouraged these practices. So, based on a solid theoretical network, this work aims to study the organizational creativity, specifically how fashion designers working in the Portuguese Textile and Apparel Industry (TAI), are influenced by the surrounding environment.

AO7 photoelectrocatalytic degradation at $\text{TiO}_2\text{-NT/La}_{0.6}\text{Ba}_{0.4}\text{Fe}_{0.6}\text{Ti}_{0.4}\text{O}_3$

A.S. RODRIGUES, L. CIRÍACO, M. J. PACHECO, A. LOPES

In this work, the photoelectrocatalytic degradation of the azo dye Acid Orange 7 (AO7), using visible light and a new photo-anode, was assessed. The catalytic material utilized was $\text{La}_{0.6}\text{Ba}_{0.4}\text{Fe}_{0.6}\text{Ti}_{0.4}\text{O}_3$ perovskite nanopowder, prepared by the ceramic method and deposited over titanium oxide nanotubes, $\text{TiO}_2\text{-NT}$. The structural characterization confirmed a cubic phase for the perovskite nanocrystals. AO7 25 ppm aqueous solutions were utilized in the degradation assays and two different electrolytes were tested, NaCl and Na_2SO_4 . Electrocatalysis was performed at an applied current density of 1 mA cm^{-2} . The best AO7 degradation result, 67% color removal, was obtained in the electrocatalytic assay with $\text{TiO}_2\text{-NT/La}_{0.6}\text{Ba}_{0.4}\text{Fe}_{0.6}\text{Ti}_{0.4}\text{O}_3$ electrodes, in sodium sulfate solution.

The behavior of textile materials in thermal camouflage

C. PIMENTA, R. FANGUEIRO, C. MORAIS

This paper reports a solution for creating women's clothing with thermal camouflage functionality, adaptable to different outdoor, diurnal and nocturnal environments. The study focuses on the color behavior analyze of thermal image in different textile materials, previously performed in a conditioned space – laboratory environment – by simulating the outdoor atmospheric temperatures, more specifically the natural environment and the skin of the human body, to be tested and compared in an outdoor environment afterwards. A climatic chamber and a thermal manikin were used in the laboratory, while a human female model and a thermal imaging camera were used in the outdoor tests. After the tests, it was found that the use of textile materials with different values of emissivity and the incorporation of structures allowing the manipulation of the air between the textile material and the human body are fundamental elements for creating an innovative clothing design process aimed at thermal camouflage.

Photocatalytic degradation of AO7 under visible light with Bi-doped SrTiO₃

M.J. NUNES, A. LOPES, M.J. PACHECO, L. CIRÍACO, P.T. FIADEIRO

Bismuth doped SrTiO₃ samples, Sr_{1-x}Bi_xTiO₃ (x=0, 0.05, 0.1 and 0.3), prepared via solid state reaction, were immobilized on Ni-foam and utilized in the photocatalytic degradation of the dye Acid Orange 7 (AO7) under visible light. The Bi-doped samples (x=0.1 and 0.3) presented very good photocatalytic activity - 83 and 77% absorbance removal (484 nm), respectively, after 7-h assays. Since all perovskite samples presented band gap energies pointing to materials with catalytic activity only in the UV (3.35 eV), the good photocatalytic activity under visible light can only be explained by the occurrence of a secondary phase for x=0.1, identified as Bi₄Ti₃O₁₂. Thus, Bi₄Ti₃O₁₂ and mixtures of Bi₄Ti₃O₁₂ with SrTiO₃ and Bi₄Ti₃O₁₂ with Sr_{0.95}Bi_{0.05}TiO₃ were prepared and assessed for photocatalytic activity under visible light. Only Bi₄Ti₃O₁₂+Sr_{0.95}Bi_{0.05}TiO₃ mixture showed an increase in AO7 absorbance removal of 10% after 7-h assay when compared with the performance of both oxides separately.

Syntactic and semantic dimensions in design projects

M. C. SANCHES, C. RIJO

This work aims to contribute to a discussion in the educational field of design, considering a holistic and systemic approach to the teaching of design methodologies. Specifically, it emphasizes the formation of the ability to articulate the syntactic and semantic dimensions in the configuration of design solutions. As a methodological approach, the study used an exploratory transversal platform that converges two surveys. An investigation of the teaching / learning of design in fashion design and a research of methodological strategies for the delimitation of graphic-semantic guidelines in the teaching of graphic design. The clipping focused on the proposition of methodological strategies that could employ visual thinking to the synthesis of expressive concepts, generating a connection between the Expressive Categories Map and the Graphic-semantic Expression Map, two unpublished tools that confirm the advantages of graphic- and active pedagogies in the training environment of designers.