

Lérias Lace: sustainability products Design

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Abstract

Lérias Lace and Innovation are the two major focuses of this research - by identifying the focus the questions arise - Is it possible to develop garments with the application or use of Lérias Lace? Will it be possible to reinterpret this cultural element in new fashion design products? It is around these questions that the objectives began to be outlined.

The Lace of the Leagues is an identifying element of the culture of a small village in the interior of the country and presents itself as a reference of the cultural heritage and the history of the people of Póvoa da Atalaia and is traditionally used mostly naperons, towels, etc. .

The richness of this heritage element lies essentially in the knowledge and technique of its execution. It also becomes rich by its social character through the involvement of older people in the transmission of knowledge that goes from generation to generation. This richness is also represented in the way this cultural element has been interpreted in the creation of other products.

The methodology consisted, in a first phase, of research and literature review on the theme - Tradition, Innovation and sustainability. This was followed by the preparation of a briefing for a national competition that resulted in the obtaining of new proposals or concrete ideas for the interpretation of the Lérias in different supports and forms.

The products resulting from the initiative should reflect the use of an element of culture and the tradition of a region in a contemporary approach where the work of fashion designers is presented as a differentiating element, important for adding value and sustainability. The Income of Lérias Lace, as a traditional element is associated with innovation by creating new proposals.

Keywords:

Sustainability; Cultural Heritage; Traditional Lace; Education; Fashion

1. INTRODUCTION

The Lérias Lace, is a crochet lace, characterized by the execution of a long loop stitch alternating with two closed stitches allowing for the creation of a very interesting aesthetically / visually texture / pattern.

This lace is an element of the cultural heritage of a region in the interior of Portugal - Póvoa de Atalaia, in the municipality of Fundão - and was traditionally used mostly in household textiles such as sheets, decorative cloths, towels and, less often, motifs for use on garments such as collars. In a religious aspect, we highlight the use of this crochet lace in the Porridge Procession, as a cover for the crocs that the curates carry on their heads.

Social sustainability is the motto for the development of this research and is based on two important pillars: on the one hand, in product development through the reinterpretation of an important element of a region's heritage, on the other, the fact that it involves elderly women in the transmission of knowledge, seeking to motivate young people to continue this craft technique.

The main objectives of this research are: To know the technique for the creation of the Lérias Lace; to generate new knowledge around the craft technique; reinterpret Lace in creating new products in Fashion Design, Accessories or Home Textiles; Promote the reinterpretation of the Lérias by Young Fashion Designers; Promoting Innovation in Lérias Lace,: application to Fashion Design - clothing and accessories; Transfer knowledge to younger people; continue having proceeds and promote social sustainability through the involvement of advanced women in the transmission of knowledge.

2. SUSTAINABILITY AND CULTURAL ISSUES

Considering a first approach on the meaning of the word, the term sustainability itself originates in the French verb soutenir, "to hold up or support" (Brown et al., 1987). The term does imply limits, however according to (Caniato et al., p. 660) sustainability means, considering the Bruntland report (1987), "being able to satisfy current needs without compromising the possibility for future generations to satisfy their own needs". Thus, it is a concept that can be posed and has a transformation of human lifestyle that can optimise health, well-being and security (Geissdoerfer et al., 2017) and not less important the re-use, re-think and reduce product concepts. Assuming that sustainability has been emerging in the last decade as a megatrend (Henninger, et al., 2016) the industry and the creative scenario in fashion has also been drastically changing. This change is mainly related to the awareness of consumers that are now more aware than ever of the issues that came from to the fashion products manufacturing processes.

Having in mind the triple bottom line approach, that considers that the tree pillars of sustainability are based on people, profit and the planet (Elkington, 1998) each fashion company should consider operating their business in order implement and achieve new sustainability practices.

The sustainable development follows the point of view of several authors and is classified into three groups: (1) Financial; (2) Environmental and (3) Social. For a development to be sustainable, it is fundamental to have an action in the life cycle of the product, from raw materials to packaging, transportation and conservation. Thus it only being possible when the various players are involved, starting with training and involving the industry, commerce and community in the

process (Seuring & Müller, 2008; Carter & Easton, 2011; Dyllick & Hockerts, 2002).

One of the failures encountered by researchers resides in the necessity to gain cooperation throughout the supply chain for the objectives related to sustainability to be achieved and for social and co-operative politics (CRS) to be developed (Seuring & Müller, 2008).

Manzini (2015) say:

“.....in a highly connected society designing participants cannot escape from interacting and influencing each other. Therefore, being influenced by different participants every design process is, de-facto, a co-design activity. That is a complex, contradictory, antagonistic process in which different stakeholders, design experts included, participate in different ways, bringing their specific skills and their culture. In other terms, co-design, as intend here, are social conversations in which everybody is allowed to bring ideas and take action, even though these ideas and actions could, at times, generate problems and tensions. Therefore, a co-design process is not a space in which everybody agrees and speaks the same language. It is a process in which different people with different ideas and languages interact and, sometime, converge towards common results. In turn, these results, precisely because they emerge from a dialogue among different ideas, can be particularly interesting, resilient and rich in cultural qualities”.

A range of initiatives by institutions and companies are being undertaken to reflect on sustainable teaching and practice versus curriculum of fashion courses and foster cooperation along the chain. For example Williams, D. (2016) and Fletcher, K. (2015) from London College of Fashion (LCF) at University of the Arts, London (UAL) and a partnership with research Centre for Sustainable Fashion, (CSF) where fashion is explored as a means to better live through sustainability with the Kering group. The development of this study identified

in the literature sustainability in the economic, environmental, social and cultural areas have which been developed as theoretical contributes. Thomas (2019) conclude in their research, how the social movements and cultural trends help to shape people’s commitments to certain kinds of sustainability and condition their adoption of particular sets of practices both at work and at home. The richness of cultural traditions are a current source of inspiration, which associated to new technologies for allow the development of differentiated products with added value, adapted to consumer’s desires.

From a social sustainability point of view, the project of applying Lérias Lace, to clothing, accessories and home textiles fits in and is extremely important, especially in an aging region of the interior of the country.

3. HISTORICAL EVOLUTION OF LACE AND CROCHET

3.1 LACE

Lace is constituted as a group of textile arts, characterized by the use of a needle (sewing or barb / barb) or bobbin (Perdigão & Calvet, 2002, p.19) and formed “by successive or stranded crossing of textile yarns ”(Magalhães, 1963, p.110). Thus one obtains “a purely decorative free-form fabric which, throughout history, has been coveted, stolen, and smuggled,” given its luxurious character, “made by the poorest women to adorn the rich” (Leslie, 2007, p .107).

The earliest known lace from Western Europe dates from the fifteenth century and was used to decorate clothes and show wealth. (Leslie, 2007, p.107)

In Portugal it is supposed that the word Lace was first used officially in the reign of D. Sebastião, in pragmatics dating from 1560, but previously, at least in 1209, was already documented in

Portuguese (Magalhães, 1963, p.117). Magalhães (1963), with regard to Portuguese hand lace, divides them into needle lace, executed “with the aid of drawing, made on rigid support, canvas” (p.110) and bobbin lace. Crochet lace is considered, by this author, to be one of the popular lace of secondary importance, along with the five-needle lace, frillette, hook lace, Tenerife lace, mixed lace, net lace and knot, the embroidered lace on the tulle, the macramé. More recently, Perdigão & Calvet (2002) present a list of Portuguese lace, which includes the “rotating lace (crochet with the strap attached to the shoulder, as a way of tensing it), along with the bobbin lace, the lace of the nozinho (knot), the fillet lace and the lace of two, three or five needles” (p.19).

In most rents are used “yarns of various types from metalized yarns (silver and gold), natural textile fibers (silk, cotton and wool) and human hair” (Perdigão & Calvet, 2002, p.22).

3.2 CROCHET

About Crochet lace is characterized by a single hook needle (also known as a barb or barb needle), and with only one thread that interweaves in itself, “not only vertically with the previous row (...), but laterally as well - with others in the same row” (Emery, 1966, p.43). If the yarn is interwoven in the same way and in all the loops of the previous loop, the slip-stitch crochet is the least complex form of closed work (Karp, 2018, p.208); if the loops of the previous loop are not all worked “forming instead of shorter chains attached to the growing fabric at intervals, the result is termed openwork crochet” (Karp, 2018, p.208).

Shepherd (2003), using the technique as the main classification criterion, divides crochet lace into simple lace crochet, filet crochet, relief or Irish crochet and hairpin crochet (p.18).

The term crochet, as far as Europe is concerned,

appears only in registers after 1800 (Paludan, 1995). However Karp (2018) points out that the “crochet was clearly in gestation before the outset of the nineteenth century” (p. 221). They therefore maintain that the detailed description “of both closed and openwork (...) and their juxtaposition in the same piece of fabric together with more complex crochet stitches, signal to a point at which the label can be applied generically to all manifestations of the craft .” (Karp, 2018, p. 221). Studies in this area show that the first crochet patterns / motifs were published in the Netherlands in 1824 (Leslie, 2007, p.xviii). Crochet is mainly used in home textiles, but is also used “for clothing and accessories such as aprons, shawls, collars, cuffs, scarves, handkerchiefs, headwear, purses, socks, and gloves” (Leslie, 2007, p.50).

4. LÉRIAS – SOLOMAN’S KNOT STITCH

The Lérias stitch, is currently known in many countries as the Solomon Knot, it has been used at least since the late nineteenth century; An 1885 publication presents an illustration of this stitch, applied to a mixed lace (figure 1) without, however, mentioning its name. (Parker, 1885, p.10).

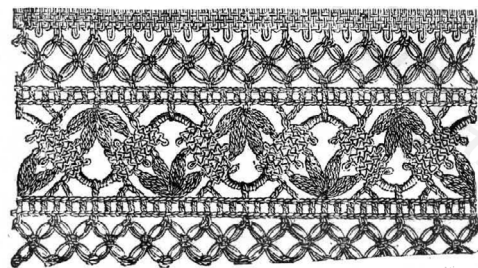


Fig. 1 – Illustration of Solomon’s Knot Stitch Set on a Mixed Lace. Source: Parker, 1885, p.10.

Other designations, however, are used to designate this stitch. By way of example we refer to two publications, one in English and one in

French, already from the twentieth century. In the English language publication the point of the Lérias Lace stitch is called “knot stitch” (Batt, 1916, p.22) whereas in the French language the designation “point de gibecière” is used (Jocelyn, 1928, p.12).

In Portugal, in the 50’s of the twentieth century the publication by Laura Santos “The Needle Encyclopaedia” presents the description and illustration “of the Lérias Lace”: “To start the lérias part a cord is made, and then a simple loop, then an elongated loop in the air and another simple loop attached to the back line of this loop. Resume again, a simple loop passing two loops over the start chain, a simple loop over the next one, and so on.” (Santos, n.d., p.188) (Fig. 2).

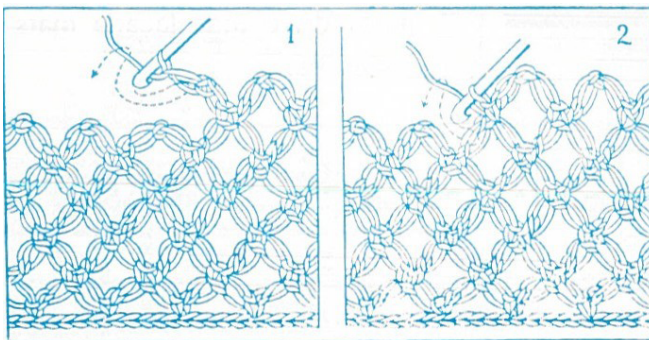


Fig. 2 – Illustration of Lérias. Source: Santos, L, (s/d)

Magalhães, in the text “Embroideries and Lace of Portugal.” (First edition dates from 1956) also refers to the stitches and shells, “employing the secret stitch” (p. 158), as one of the most popular crochet stitches. Generally this is a crochet stitch “made up of a series of intertwined elongated hoops producing a net-like effect” (Reader’s Digest Selections, 1985, p.365). To achieve this effect correctly, it is necessary to “pay special attention to where the needle must enter to make (... the...) simple knot” (Reader’s Digest Selections, 1985, p.365) that joins the elongated rings. The use of Solomon’s knot with other crochet stitches and other textile arts seems to have been

a trend in Portugal for decades. Santos presents a “decorative cloth” that combines “vulgar crochet”, stitches and hooked ones. (n.d, p.133) (Fig. 3).

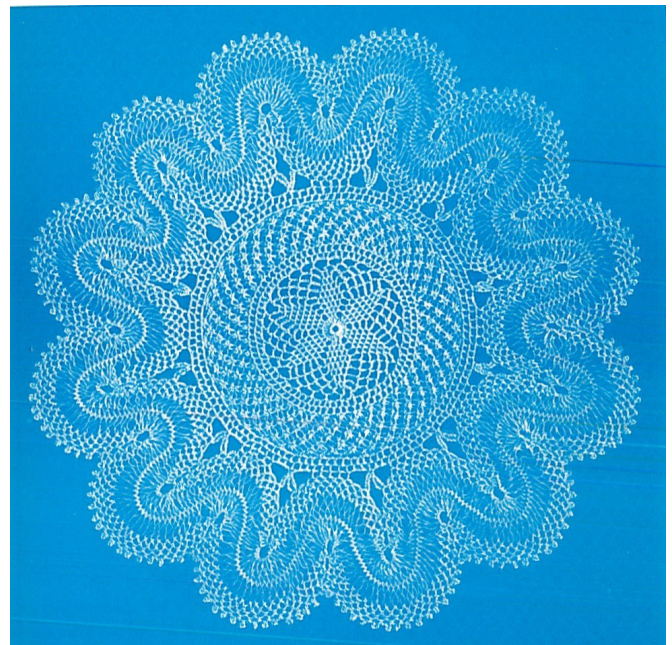


Fig. 3 – Decorative cloth with “normal croche”, stitches and shells. Source: Santos, L, (s/d)

One of the essential products of traditional Nisa costume, a locality in the Alentejo interior of Portugal, are the shawls, embroidered to the chain, polychromatic. White shawls, made of wool, used during the Carnival, are applied with fringe where they integrate the stitches, as a characteristic element of this product (Nisa City Council, 2009) (Fig. 4).

In macramé there is a knot called Solomon’s knot which, executed in such a way as to use half the threads of each knot from the previous loop to a new knot on the next loop, produces an aesthetic / visual effect very similar to the crochet stitch.



Fig. 4 – Nisa Shawl fringe application used as Lérias Lace
 Font: <http://museubordadoebarro.cm-nisa.pt/pt/embroiderytypes/>

5. LÉRIAS IN PÓVOA DA ATALAIA

The Lérias Lace (Fig. 5) is characterized by the conjugation, in almost all its variants, of Solomon’s Knot stitch with the Shell stitch or with rectangular elements formed by simple braids. In this village Solomon’s knot is commonly referred to as “the open ones” while the Shell point is known as “the closed ones”. Dona Maria de Lurdes knows, however, the technical name Shell stitch, but throughout the interview she never referred to the Lérias Lace, “the open ones”, as Solomon’s Knot (Interview 1).



Fig. 5 – Lérias Lace : Lérias or Solomon’s Knot (1); Shell stitch(2).

The material used for this crochet lace is three-strand mercerised cotton twine, with a thickness ranging from 60 to 12, usually white but also in pastel colours, worked with a steel needle. barb to cotton thread number 12; for cotton thread number 20; and for cotton thread number 60. In Póvoa de Atalaia the Lérias Lace has been known for at least a century, since the 90-year-old D. Maria da Cruz Nabais has been making this lace since she was a child, and her deceased master, also resident in this village, D. Maria de Jesus Henriques, knew this technique before. During the twentieth century, especially in the early decades, almost all girls of marriageable age had, in their trousseau, various textiles where the application of the Lérias Lace could not be missed: a sheet with two pillows and a pillow, bedding and towel (Interview 2). Thicker cotton yarn, number 12, is used for interweaving; already in decorative cloths and other smaller products, thinner yarn is preferably used, from number 20 to number 60. The ladies interviewed remember the line “Alsace, which was more twisted, more resistant”, referring to a cotton yarn brand (Interview 3). If at the beginning of the twentieth century the Lérias Lace was applied to household textile products, made with cotton thread, in recent decades some ladies started to apply this lace

to other products, namely to garments and accessories using, in their execution, a thicker yarn of varying composition (especially a mixture of textile fibres) which D. Maria de Lurdes generically called wool. (Interview 1)
 In Póvoa de Atalaia one of the events that mobilizes almost the entire village is the Porridge Procession, in honour of Saint Sebastian (Fig. 6).



Fig. 6 – Procession

The feast dedicated to this Saint was celebrated some years ago on January 19th, but today the festivities take place on the third Sunday of January. On this day 24 curates carry on their heads trays (with offerings of “coscoréis” a sweet flour pastry and white corn porridge), coated with either decorative cloths or towels, enriched with lace, among which is often the Lérias Lace. These decorative cloths and towels are used in addition to the white colour, cotton threads in pastel colours, beige, yellow and pink, most often. The feast dedicated to this Saint and the traditional Porridge Procession dates back to “ancient times when there was a locust plague and people promised to make the procession every year” (Interviews 1, 2 and 3). Thus, while in the procession itself it is the ladies / stewards who carry the offerings, later it is the ladies / stewards who have the task of distributing the offerings to all those present.

The traditional is made with a hook or barb

needle, worked with the left-hand cotton cord (Fig. 7) or, alternatively, with the right hand and, in this case, pinned to the shoulder (Fig. 8).

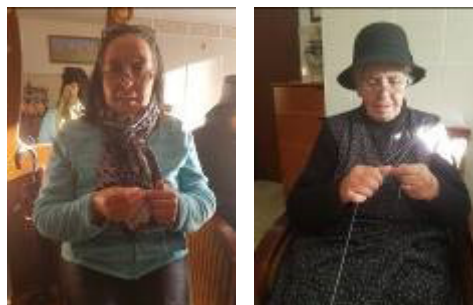


Fig. 7 – Lace made with a cotton thread under tension with the left hand

Fig. 8 – Lace made with a cotton thread on the shoulder under tension with the right hand

From what has been collected, it can be said that the Lérias Lace is applied differently in various textile products. Thus, there were round crocheted decorative cloths with alternating crocheted circular crowns in Solomon’s knot and in simple braids forming 3-turn modules, each with 9 or 10 simple braids (Figs 9 and 10).



Fig. 9 – Round decorative cloth: Solomon’s knot and the closed knot

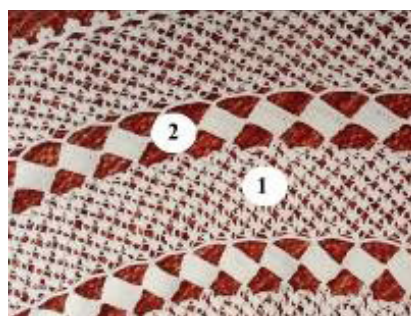


Fig. 10 –Round Decorative cloth : Solomon’s knot(1) closed (2) (detail)

Another option, very common in Póvoa de Atalaia, is the application of a crochet lace, in linen or cotton fabric, with a square or rectangular shape, where the Solomon's knot and the Shell stitch are always combined with a peak. In this case lace can be applied only on one side of the fabric (on hand towels and intertwining, for example), on two opposite sides (on pillows and decorative cloths, for example), or on all four sides of the fabric. fabric (in decorative cloths and pads, for example). In the latter case the lace has corners, which constitute the most complex element of execution: "they are more difficult to do because there are no drawings, we have to think about how to do it" (Interview 2). The "beaks", an expression which the interviewed ladies use to designate crochet bars, also vary in both their width and the way they combine Solomon's knot and Shell's knot. In some examples the Shell stitch is presented in a simple module that goes with both sides of the lace.

In other cases there are products where the Shell stitch is grouped in modules from 2x2 to 5x5, forming rhombs. The larger the shell stitch (Fig. 11) used, the longer the time required to perform the lace and it will be as the "closed ones" running with 8 or 9 high braids / stitches which significantly increases the execution time.



Fig. 11– Rectangular decorative cloth with the Shell stitch in modulus of 3x3.

Another aspect that differentiates the products where the Lérias Lace is applied on linen or cotton fabric is the ornamentation of it with open sheaths and white embroidery (Fig. 12) or only

with polychromatic embroidery (Fig. 13) which, for example. On the other hand, they contribute to product customization.



Fig. 12 – Rectangular decorative cloth with crochet lace, open seams and white embroidery



Fig. 13 – Rectangular decorative cloth with crochet lace and polychromatic embroidery

It should be noted that for the interviewed ladies there is no unanimity regarding the law of this point; the shells are both convex and concave. A 1 meter long strip made exclusively with Solomon's knot (nine Solomon's knots) takes an average of 10 to 15 hours to complete. Dona Maria da Cruz Nabais regrets the long time she currently needs to make this lace, about twenty-five hours. It is a very time consuming job that is done to take up time and not for profit (Interview 3).

For the application of the Lérias Lace in the coordinates / pieces of the fashion shows strips of lace are crocheted exclusively to Solomon's knot for a matter of time.

6. LÉRIAS APPLIED TO CLOTHING

The methodology for the implementation of this project focused, in a first phase, on the research around the knowledge of the locality, a small village of Fundão, where the Lérias Lace are made. After knowing all about this land, we sought to establish partnerships that could strengthen the implementation and dissemination of the Lérias Lace project. The partnership between the Fundão City Council and the Póvoa da Atalaia

and Atalaia do Campo Parish Union with the two Higher Fashion Design Institutions in the region - ESART / IPCB and UBI, strengthened the project. A contest was created for young designers or students of Fashion Design at partner institutions and others in the country. The purpose is to develop clothing, home textiles or accessories with the application or reinterpretation of Holiday Lace.

The invitation was made to a nationally renowned Designer to join the Competition Jury - Carlos Gil - Designer born in Fundão and with studio there, to reinforce the importance of this project. The participation of the Designer in the jury allows us to increase the creative and execution quality of the proposed new products.

The invitation was extended to other elements, equally important, to join the jury and that can greatly contribute to publicize the project, such as the Selective Fashion Association, in the figure of Dr. Manuel Serrão.

The result of the contest is presented annually in a Fashion show, at Póvoa da Atalaia.

Póvoa de Atalaia is a Portuguese town in Fundão, with 12.67 km² and about 500 inhabitants. It was the seat of an extinguished parish in 2013, as part of a national administrative reform, to, together with Atalaia do Campo, form a new parish called Union of the Parishes of Póvoa de Atalaia and Atalaia do Campo.

The village has two traditional festivals: the Porridge Festival, held in January, and the Feast in honour of St. Stephen in September.

In Póvoa de Atalaia the poet Eugénio de Andrade (1923-2005) was born and lived his childhood until 10 years old, when he moved to the city of Lisbon.

The design of Lérias Lace Moda is already in its 5th edition and has seen a great evolution, both in the various product proposals presented and in the parade's own format.

The proposals include the reuse of materials, with a sustainable view of fashion, with the application of lace from the most important feminine fabrics (Fig. 14), still appearing in the first edition of the contest, in 2016.



Fig. 14 – Lérias Products 2016

In the last edition of the Contest proposals were already presented for Children, Men and Women, and the approaches to lace are very diverse, namely with prints, dyeing and manipulation of lace and their direct use in the proposed garments



Fig. 15 – Lérias Products

7. 2019 COMUNICATION OF THE PROJECT “LÉRIAS – A ARTE DAS LINHAS” (THE ART OF THREADS)

Today, Portugal is facing the demands of a new, globally more competitive market. In this new economic context, interconnected by lattice structures, geographical distance is a variable that is losing importance allowing, with the implementation of integrated communication strategies, to catapult to the centre of world interest, the cultural manifestations of each of the different peoples. In sharing cultural experiences and traditions that have an economic potential to exploit, local tradition is raised to the maximum exponent of the global. Promoting local heritage thus brings innumerable challenges and consequently great opportunities and it is in this precise context that the “Lérias - The Art of the threads” Project, organized in partnership by the Municipality of Fundão and the Parish Council of Póvoa de Atalaia and Atalaia do Campo. Communication of this project is of the utmost importance. This is where a set of initiatives include:

- “Lérias: The Art of Threads - 2019” Competition to raise awareness among young fashion designers, and the general public, of the

importance of maintaining the traditions of Lérias Lace and applying them to the development of new fashion products. added value incorporating the artistic and craft traditions of the region.

- Contest “Traditions of Beira Interior in Fashion - 2017.

- Fashion Show for the presentation of the works for the competition, resulting from the partnership of two Higher Education Institutions of the Region, which integrate in their training offer the Fashion Design course, the Polytechnic Institute of Castelo Branco (School of Applied Arts). and the University of Beira Interior. This event took place in 2017 and 2019.

The communication strategy is intended to participate in National and International Fairs, where will be exhibited the winning products of the contest “Lérias: The Art of threads”.

The implementation of this project fits in the context of the establishment of strategic partnerships at regional and national level, with a view to raising the economic interest for the production and creation of new products with Lérias Lace and thus enhancing the cultural heritage of this region increasing its economic competitiveness.

CONCLUSIONS

The challenge of applying and reinterpreting the Lérias Lace in the design of garments led to the search for knowledge of the history and production method of this cultural product.

Key elements resulting from research such as technique, production mode, raw material, applications, stitch types and details will determine the choices and influence all the aesthetics and narrative to develop.

The Designer seeks their inspiration through research and reveals their own sensitivity and visual aesthetics in the development of unique pieces that unify the initial concept as a whole. You can reinterpret Lérias Lace by giving it a new approach associated with Product Design. As a result, its diffusion is shown on the one hand to reinforce the identity and culture of a region, on the other hand it can boost the development of production for these products by increasing their demand.

The development of the Lérias Lace project is an important project for sustainability, and cultural sustainability, as it seeks to reinterpret an important element of land culture - Lace. Also, Sustainability at the social level, as it involves older women in the realization of Lace; Village children on the fashion show runway presentation while also involving and sensitizing young designers to the use of lace in their product proposals;

It is possible to develop product proposals by applying the Lérias Lace that may be of economic interest.

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Interviews to:

Maria de Lurdes Luciano – 57 anos (Interview 1)

Rosa Milheiro Domingues – 84 anos (Interview 2)

Maria da Cruz Nabais – 90 anos (Interview 3)