Cortebel 50 in Almalaguês

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Abstract:
This paper presents a collaborative research initiative involving a design approach to Almalaguês, a Portuguese hand-weaving technique possibly dating back to the 11th century. The associated research culminates in ‘Cortebel 50’, a project that pays homage to the industrial legacy of iconic Portuguese footwear manufacturer, Cortebel, in its 50th year of operation. Its practical component involves exercising tenets of ‘Designrascar’ in an industrial setting beset with infrastructural and resource-based constraints. It endorses a hands-on approach to design and acknowledges circumstantial constraints as factors that inspire imaginitiveness beyond understood thresholds. One partnership has been formed with Associação Heranças do Passado, a non-profit association established to document, preserve and sustain the production of Almalaguês fabric. According to research findings Almalaguês textile faces an uncertain future. It remains largely unacknowledged despite its cultural significance and creative potential, which this project aims to address. Outcomes include production of exclusive ‘Cortebel 50’ footwear in Almalaguês.

Keywords: Portuguese footwear; Almalaguês weaving; Brand archaeology; Designrascar; Contextual hybridisation.

Introduction

This paper presents a collaborative research initiative involving a design approach to Almalaguês, a Portuguese hand-weaving technique possibly dating back to the 11th century (Gomes, 2016).

The associated research culminates in ‘Cortebel 50’ (de Almeida, 2014), a project that pays homage to the industrial legacy of iconic Portuguese footwear manufacturer, Cortebel, in its 50th year of operation. Its practical component involves exercising tenets of ‘Designrascar’ (Chatterjee, 2014) in an industrial setting beset with infrastructural and resource-based constraints.

The core objective of Designrascar approach is to promote the efficacy of ‘design by doing’ (Sinur, 2010, cit. in Coyle & Hinchey, 2012) as a viable method for chartering unpredictable territories in constantly shifting socio-economic landscapes. It endorses a hands-on approach to design and acknowledges circumstantial constraints as factors that inspire imaginitiveness beyond understood thresholds.

The subsequent design process accordingly proposes two main courses of action. One involves leveraging in-stock materials through improvised admixing, whereas the second seeks strategic partnerships with manufacturers of textile materials not conventionally associated with footwear. The reasoning behind the latter is to consider already existing varieties, instead of developing new materials, and re-contextualize them as per requirement. One such partnership has been formed with Associação Heranças do Passado, a not for profit association established to document, preserve and sustain the production of Almalaguês fabric.

Almalaguês is homonymous with the village of its origin near Coimbra, Portugal. This traditional knowledge has been kept alive through many generations of weavers. However, according to research findings (Caetano, 1988; Pires, 2003; Fonseca & Pires, 2007; Gomes, 2016) Almalaguês textile faces an uncertain future due to a myriad of factors, including a lack of formal studies and inadequate promotion. It thereby remains largely unacknowledged despite its cultural significance and creative potential, which this project aims to address. Outcomes include the production of an exclusive series of ‘Cortebel 50’ footwear in Almalaguês.
A brief history of Almalaguês weaving

Almalaguês is a parish situated in the central region of Portugal, near the city of Coimbra. The nearby Mondego river fertilizes an extensive plain traditionally used for linen cultivation, and links the mountains to the sea. Such an articulating role between the plains, the sea and the mountains has historically facilitated the trade and transport of goods from ports based in Portugal and abroad. Coimbra is a district of contrasts where the maritime neighborhood and the mountainous zone create great differences in the weather, wavering between temperate and cold climates. Almalaguês lies in this very intersection, at the southwestern foothills of the central Iberian mountain range comprising of Serra da Estrela, Serra do Açor and Serra da Lousã. These locales provide rich natural pastures for cattle-grazing during summers, and the surrounding valleys of the rivers Mondego, Ceira and Dueça rivers have accommodated the cultivation of flax for centuries. Such easy access to raw materials and the richness of the mountains and the water of the rivers have allowed for the production of linen and wool in these parts, and consequently, fostered weaving.

Almalaguês falls at a distance of 9 km in a straight line from the Roman ruins of Conímbriga, once the capital of the province of Lusitânea. According to the available archaeological evidence, the town was inhabited between the 9th century BC to the 8th century AD. Records at the Conimbriga Monographic Museum indicate that spinning and weaving were already a part of the local rural and commercial life, as evidenced by the numerous instruments that were found associated with spinning and weaving, shearing of animals, wool preparation, and sewing. This theory gained further ground when dozens of instruments connected to the weaving trade were discovered concentrated in a single housing block. It thus points to a hypothesis that artisanal production of yarn and fabric existed as a partially organised industry.
Additionally, formal and figurative influences pertaining to the Roman era are perceptible to a great extent in Almalaguês’s weaving motifs to this day, however, other cultural relations can also be seen. The work, for example, is based on different grid systems, which may link the construction of Roman mosaics to weave designs, by having infinitely repetitive structures that reproduce the same element contiguously. These grids constitute the fundamental framework for the development of more complex geometric forms such as circular patterns, crossed bands, and tessellations, among others.

The simple grid has been commonly used as a decorative planning system, allowing infinite possibilities. The base grid has also been utilized, at times, as an element of decoration by itself. In the traditional technique of Almalaguês the weavers use graph paper to draw the motif that is to be interpreted, on each square corresponding to a point. This also correlates with the graphic lexicon, narratives, and practices of Roman mosaicists. However, despite its noticeable proximity to the Roman culture, the village of Almalaguês also has Moorish influences from its history. According to Ruy de Azevedo (cit. in: Rodrigues, 1971, p. 23) the geographical name Almalaguês is likely to have been derived from its possible founder Zoleiman Almalaki, a native of Málaga and a squire in Vila Mendiga, in 1088 AD.

Although the art of making carpets is regarded as originating in Persia, Europe too has an extensive history in rug making, especially onwards of the 12th century AD. In consideration of its Moorish history, the Iberian Peninsula is one of the most recognized weaving regions in Europe. Even though it is not possible to equate the tapestry technique of Almalaguês with original Persian works, there are similarities in figurative and geometric motifs, hinting at Persian influences. In the technique of Almalaguês there is no knotting as present in the Persian tapestry, but instead there exists a “pulling” technique where the thread of the weft is pulled between the intervals of the warp threads (Caetano, 1988). There are several compositions depending on the tapestry dimensions, and these are usually divided into three main parts: the field; the beads; and the inner and outer bands. The decorations are essentially composed of figurative elements such as floral and plant motifs which are geometrically articulated through fields, bars and
stripes. Recurrent motifs include straight and curvilinear branches and stems, either in isolation, or arranged in spirals or waveforms. Some of the motifs are based on natural and artificial elements such as vases with flower arrangements, sunflowers, stars, and other geometric forms such as squares. From the Almalaguês sample evidence only two figurative animal motifs can be found, which are the Peacock and the Dragon. Another recurrent feature in the technique of Almalaguês is the use of a central medallion.

Mallalieu (1999, p. 160) asserts that the first significant incursion of Islamic culture in Europe was the occupation of Spain by the Moors in the second decade of 8th century AD. The cities of Alcaraz, Cuenca, and Almeria, thus became among the main carpet centres of Europe. By this time the city of Granada (Medina Granata) was the capital of the Taifa kingdom of Granada, which included Almeria and Malaga (Gerli, 2003, p. 369). Although it cannot be accurately verified, a supporting hypothesis regarding the toponym of Almalaguês can be made here. According to interviews conducted with the present day weavers, a consensus has been reached regarding the oldest known motif of Almalaguês—the Pomegranate—which forms a central medallion. It resembles the still existing centre symbol in the flag of Granada, the Spanish province, and can possibly be attributed to Granadians, including people from Malaga, who relocated to Almalaguês in the 11th century AD.

Unlike many other textile arts of Portugal such as the Arraiolos tapestry, the Renda de Bilros lacing, or the Bordado de Castelo Branco embroidery, the repertoire of Almalaguês has traditionally found no place in churches, manor houses, or museums. Instead, Almalaguês has adhered to being a productive and artistic vocation for the common folk. Several indicators support the assertion that the absence of colour, durability of the fabric, simplicity of the motifs, basic geometrization, and the transformation of the knots into pulls, among other characteristics may have lead to the fabric being considered crude and less sophisticated, and thus may explain its absence from literary tributes and commemorative archives. However, its particularities including grammar, technique, and identity validate reasons for it to be considered as one of the oldest and most unique forms of weaving in Portuguese and European history, despite which Almalaguês today languishes as a dying art form. Another factor exacerbating its current state is that despite being close to an important city such as Coimbra, the surrounding area of Almalaguês has been relatively isolated over the centuries due to the region’s geographical constraints. It is also the possible reason why the Almalaguês weaving technique has survived and been kept almost unknown over time.

Previous studies on Almalaguês are scarce and incomplete. The contributions of Caetano (1988) on industrial archaeology draws upon a conducted study to decipher elements for the ethnographic and socio-economic characterization of Almalaguês artisanal weaving. Fonseca & Pires (2007), on the other hand, attempt to create an extensive mapping of details and techniques relating to the motifs of Almalaguês. Further dissemination includes articles by Correia (1910; 1912) on the subject of handlooms in Coimbra. Although these studies are directional in terms of the acknowledgment of individual aspects, they also show that an academic void exists in the overall contextual understanding, cultural significance, and future scope of this weaving art form.

In order to address such void, this paper draws primarily from the doctoral research of one of its co-authors, who seeks to provide a deeper understanding of the craft, building not only upon the previous studies, but also furthering the technical discourse while documenting in-situ its human dimensions through extensive fieldwork. This study thus makes a contribution to the historical inscription of the Almalaguês craft, as well as maps specific techniques and tools, while simultaneously reinforcing the role of designers as mediators in the articulation of different industries and processes, and as catalysts of radical positive change in a social context.

Within the local frame of reference, the research has established a collaboration of trust with a community of weavers, related associations and local authorities. A prominent contact in this case has been the Associação Herança do Passado, a non-profit association whose aim is to document, preserve and sustain the production of Almalaguês fabric, and which has aided in the mediation between the research work and the craftswomen.
Cortebel 50 and the associated research

Cortebel 50 is a part of an action-research project in design which focuses on iconic Portuguese footwear. It employs “Brand Archaeology” (de Almeida, 2012, pp. 87-97) methods as a practice-based research activity in design and brand identity to recover, organize, and utilize entrepreneurial/corporate archives from heritage brands. A related design intervention has been developed and implemented at Cortebel, which is a Portuguese footwear manufacturer of iconic designs from the last quarter of the 20th century. The aim of the project is to construct and explore Cortebel’s physical and digital archives, which are seen as key strategic and generative resources for reinterpreting the brand’s visual and product identity from its own historical and cultural perspective.

Cortebel was founded in 1965 in Cortegaça, in the Aveiro district of northwest Portugal. In its heydays between 1970 and the end of 1990s, the company famously provided the Portuguese army with specialist footwear, and did large scale outsourced production for known international brands. In the Portuguese market, Cortebel was best known in that era for light *Summer Time* PVC injected cotton shoes, as well as for the popular *Ténis* sneakers, and plain white flats used for Gymnastics.

On the year it celebrates its 50th anniversary (1965–2015), Cortebel has become representative of a strand of local Portuguese small-scale industries that face the threat of foreclosure, however, their potential to stand up for cultural difference remains.

Within this framework, the project aims to document the factory, and its context of production behind the brand, including both the physical conditions and the human side, along with the recording of a design process that involves archival research into the brand’s contextual history. Secondly, the creative exploration uses elements either drawn from the archival phase of this research, or from other resources existing in the factory. The available fabrication knowledge, machinery, and dead stock materials have been put together to produce a celebratory series of Cortebel’s most representative shoe designs. This process involves hands-on approach to design through direct engagement with the workers at the factory, and with complicity of the company’s administration. Thirdly, the project not only addresses an opportunity for a new brand and product identity, but also uncovers layers of meaning and personal stories by taking a retrospective glimpse at various stages of the brand’s lifecycle. As a design and ethnography process, it sums up the various levels of impact such an intervention can have: cultural, historical, social, economic, and aesthetic.

Simultaneously, a wealth of historical Portuguese crafts and skills faces disappearance due to a lack of resources, communication and narratives. There lies a reciprocal value and potential for recovery in the dynamic convergence of traditional industry and historical crafts, towards mutual reinvention and revitalisation. In this context, the crossing of industrial and craft-based activities through design intervention has effectuated new products, along with media narratives relating to heritage, and cultural and consumer interest.

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Hands-on approach and the Designrascar method

The previously gained skills and experience, and more importantly, mutual interest in Footwear design and technology shared by two of the co-authors, lead firstly to a collaboration between distinct projects at Cortebel. This collaboration commenced with a thorough synopsis of Cortebel’s brand history and its significance to the golden age of Portuguese sneaker manufacturing, its iconic product ranges, and the current predicaments which the company faces in terms of resources constraints—both human and material—due to its gradual decline owing to a variety of factors. Thereby, it perceptibly fulfilled all criteria for the application of the Designrascar method in a real-world industrial setup. The possibility of experimenting with certain related technologies subsequently emerged, in light of genuine goodwill and empathy to the project interests on the part of the owner of Cortebel.

The initial phase of experimentations looked into the injection process of soles, where the primary objective was to propose freshness to corresponding footwear ranges from Cortebel by introducing non-traditional colours and materials. This experiment involved sourcing the said colours and materials from the immediate environment, which in this case were the factory premises, and consequently, it was possible to apply unusual pieces of discarded materials during the injection process. This attempt at interacting with Cortebel’s resources and technologies yielded a hybridized collection of soles. However, during the intervention, the existence of large amounts of excess stock in more regular materials such as leather and textiles came to light, which were either leftovers from previous production orders or may have been procured for eventually scrapped projects. This lead to a further requisition to Cortebel for
developing a range of footwear, which could fit within the clauses of the above-mentioned collaborative project, and could also help synthesize this stock of extraneous and notably heterogeneous material into an agent of context and reflection for Cortebel and its industrial legacy. In this way, a proposal was made to the company for developing a Cortebel 50 range that marked the Golden Jubilee of Cortebel as a brand, celebrating its significance and contribution to the Portuguese footwear industry. It could also prove instrumental in supplementing the tangible and practical outcomes of the individual research projects involved in the collaboration.

For Designrascar to work as a viable method in creative production, the existence of two decisive cornerstones is mandatory, namely, a pressing need that it can be consonant with, and secondly, a relative situation of resource constraints which requires creative manoeuvring. In the case of the Cortebel 50 range and project, the need aspect becomes apparent when we consider the massive decline the company has faced over the past two decades, which has brought with it debilitating consequences including financial losses, loss of key clients and distribution networks, the dismantling of entire production sections, the discarding or ossification of key assets, and an extensive reduction in the workforce. Hence an overall decrement of the brand potential has taken effect, not only in terms of its production capacity, but also concerning its contemporary and future relevance. The second cornerstone of constraints thus considers the company’s incapacity at present to: de-ossify a large section of its existing assets, including various machinery and other infrastructure; invest in new infrastructure such as shoe moulds, cutting knives, and state-of-the-art materials and equipment; hire key personnel who can help mitigate existing circumstances; compete adequately with other players in national and international markets.

Thereby, during the course of the Cortebel 50 project, considerable limitations were faced in terms of:

- accessible operatives and expertise;
- accessible machinery and equipment;
- the availability of upper patterns and sole moulds;
- the availability of non-basic PVC tints;
- finances for further investment into R&D.

In which case, it became mandatory to improvise, in order to leverage and optimise the available human, material, and infrastructural resources, and to utilise the said limitations in a way in which they could work in favour of the project’s objectives.

This was achieved in a number of ways. During an improvisation process, the heterogeneity of materials at hand works technically as an ally for the improviser since it allows for greater flexibility in terms of admixing to arrive at a suitable solution. Here too, the available variety in the leather and textile stocks helped improve prospects of offsetting some limitations posed by the lack of sole mould styles and colours, and the inability to conceive newer upper patterns, by providing the possibility of fusing different material types that carried a plethora of varied physical and cosmetic characteristics including colour, texture, prints, density, and stiffness.

It was also possible to work around the restrictions posed by limited sole and upper styles by making atypical combinations between individual typologies of soles and uppers to arrive at unfamiliar but new permutations. Although for the purposes of furthering effectivity, three particular upper and sole combinations were identified as iconic (Summer Time, Ténis, and Bota Militar), and a bulk of the range was developed on them. The atypical combinations, thereby, were considered directional for possible future implementation.

Further on, the core of the range was narrowed down to the above mentioned three styles in consideration of certain key factors, the first of which concerned their iconic value. The brand has been identified over the years particularly on the basis of these three popular styles, and thus they automatically became indispensable to a range which sought to celebrate Cortebel’s industrial heritage and legacy. Correspondingly, new colours, materials, and textures to these styles were sought to be introduced with an aim to reconceptualise their personality while retaining their essence.
Figure 4. TDRG – Cortebel 50 poster presentation at Ciência 2016, Lisbon.
Source: TDRG – The Authors
Simultaneously, external possibilities kept being explored with respect to further collaborations, partnerships, sponsorship, and networking, which could aid in the consummation, dissemination, and promulgation of this project along with the advancement of its objectives beyond academic research. This lead to an interfacing with the third co-author, and his research subject, Almalaguês. At this intersection, the project gained a new and unexpected direction through bringing together interventions at Cortebel and Almalaguês into footwear manufacturing.

![Figure 5. TDRG – Construction stage of Cortebel's Summer Time footwear design in Almalaguês. Source: TDRG – The Authors](image)

**Cortebel 50 in Almalaguês**

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Cortebel 50 in Almalaguês thereby, is an intervention process at Cortebel which explores the use of traditional Almalaguês weaving in footwear manufacturing. The utilisation of Almalaguês fabric represents a natural evolution of the Cortebel 50 project in several different ways.

Firstly, the fabric exemplifies a wider scope of heterogeneous material that can be locally sourced and implemented in injected footwear manufacturing, thereby serving to develop a mutually serviceable ecosystem. Such cross-industry partnerships have indeed been established before at Cortebel, with regard to typical Portuguese industries such as Burel (wool and felt) and Teias da Lona (cotton canvas), however, this is the first time an association has been made with the Portuguese handicraft industry, and with a handloom material. Secondly, since the Almalaguês fabric is primarily woven to make carpets, bed covers, and upholstery, the distinctly durable structure of the weave suits the requirements for constructing long-lasting footwear, and it is hence an appropriate alternative to the likes of leather, Burel, or tarp canvas.

Additionally, since the associated hand-weaving industry is also in terminal decline, and the art form can genuinely be considered vulnerable (Gomes, 2016), a meaningful collaboration with the industry can aid in the sustenance of artisans, and thus, the maintenance of the craft. This in turn corresponds to the idiopathic objective of any Designrascar intervention, which is to address real-world needs.

The import of the Almalaguês project into Cortebel 50 in this fashion signals an unusual collaboration from the view of Portuguese industrial legacy and heritage: the contextual hybridisation of two distinct yet complementary activity centres in need of revitalization. This presents a novel avenue for exhibiting the exclusivity of Almalaguês on an international level for the first time.

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**Figure 6. TDRG – Functional model of collaboration.**
Source: TDRG – The Authors

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A preliminary but critical stage of the research was to establish a trustful and mutually empathic relationship with the factory workers and the weavers through non-participant observation and documentation.

The initial series of footwear prototypes was then developed in conjunction with the factory workers, using samples of Almalaguês fabric provided by the weavers. The respect and acknowledgement given to their practices during this development raised the concerned people’s confidence and interest in the project. This led to the production of Almalaguês fabrics exclusively for the Cortebel 50 series, with contributions from 17 participating weavers.

Figure 7. TDRG – A batch of Cortebel’s Summer Time in Almalaguês awaiting assembly. 
Source: TDRG – The Authors

The prototypes included the showcasing of motifs and techniques representing essential traditions of Almalaguês weaving. In addition, this activity helped create a preliminary map of weavers, their corresponding skills, and their geographic location. The enthusiasm of the participants further increased when they were offered a bespoke pair of shoes using the fabric which they wove. This led to a reinforcing of their interest in further developments. Similar to previous ranges of the Cortebel 50 series, which bore the names of the factory workers, the individual prototypes of the Almalaguês range were named according to the names of their corresponding weavers.

Both at Cortebel and in Almalaguês, it was positively surprising to see the hope the participants expressed in relation to the project, its meaning, and its potential to sustain both activities. A final note on the role of design with respect to diplomacy in community engagement can be made through emphasizing...
on how in Almalaguês, this project is currently contributing to reducing differences and establishing an accord between two distinct factions of weavers, by boosting interpersonal communication and exchange, with the support and complicity of local authorities [1] and CEARTE [2].

Figure 8. TDRG – Workers from Cortebel’s sampling room (top row) and weavers from the Associação Heranças do Passado (bottom row).
Source: TDRG – The Authors

Outcomes and results

The overall design intervention at Cortebel, and specifically its consociation with Almalaguês weaving, has created different segments of impact. A cross-disciplinary platform has emerged from the process, benefitting the footwear manufacturer, the weaving community, and related industries in equal terms.

Weaving looms have been adapted unprecedentedly to fit the size formats of the Summer Time knife moulds from Cortebel. A selection of typical motifs has been made, which best represented the weaving culture of Almalaguês. These have been placed with precision according to the outline of the Summer Time design uppers. Placement and adjustment has also been done to accommodate the direction of the weave in accordance with the shoe pattern. The medallion of the Granadian Pomegranate, which is one of the most meaningful and representative motifs of Almalaguês as explained before, is difficult to replicate due to its highly complex weave structure, and is thus rarely reproduced. For this project, this medallion has not only been replicated for the first time in the current century, but also painstakingly scaled down to fit the dimensions of the Summer Time uppers.
For the Cortebel 50 series, a set of 23 different designs in Almalaguês have been developed in the form of prototypes. This range is presented to the public for the first time at Intersections Conference 2017.

A network has emerged which can potentially sustain the craft: different entities such as the community of weavers represented by the local association; industrial workers and partners; the Portuguese council for arts and crafts; and administrative authorities. Such aggregation has been made possible primarily through a design intervention within an academic context. A celebratory event for presenting the results of the intervention has been organised. The occasion marked an opportunity for all involved to meet and relay their interest and experience. From this encounter, further possibilities have emerged, pertaining to prospective collaborations and advancements.

Critically, an overdue acknowledgement process and dissemination of Almalaguês weaving has been undertaken through its incorporation in footwear, which represents a non-traditional product segment for this craft, but works to leverage a broader interest in it.

The objective of the Brand Archives and Brand Archaeology approaches have fostered the inducing of generative resources beyond initial expectations. Similarly, the Designrascar approach has found an appropriate scenario for its implementation. Lastly, a theory-based historical study on Almalaguês has yielded practical results, which have helped culminate its relevance in a design context, although they were originally not a part of the intended objectives.

Figure 9. TDRG – Weavers from the Associação Heranças do Passado holding their bespoke Summer Time with self crafted fabrics.
Source: TDRG – The Authors
Conclusions

It is for the first time that Almalaguês is presented internationally with such a comprehensive degree of detail, and furthermore, it has contributed to channelizing a plethora of different dimensions, including layers of social, historical, cultural, industrial, academic, and economic domains.

For the Portuguese footwear industry, the intervention presents a new model of collaboration through its merging with artisanal crafts. This project possibly represents a new benchmark for projects linking design and crafts in the Portuguese context, and pioneers the approach to Almalaguês. It provides the potential for creating a mutually beneficial environment between all collaborators involved.

Although the approach to the project was intended and planned, the actual outcomes and results have been partly unexpected. The degree of uncertainty which exists in this regard, has only been possible to reflect upon after stages of implementation. Some results could not be predicted, especially relating to the human dimension of the project and its impact, both within the community of weavers, and in terms of the final products. With the completion of the experimental development stage, this uncertainty remains, only to be addressed by future actions. Questions persist regarding these future actions, including the transition of the intervention from an academic experiment to a commercial venture, in view of economic impetus which is required for sustaining its members.

In conclusion, regardless of the concerns, this approach has developed a functional model for the articulation between design, industry, crafts, and academics, which can be potentially replicated in alternative spheres.

Figure 10. TDRG – Functional model of impacts.  
Source: TDRG – The Authors
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**Notes**

[1] Junta de Freguesia de Almalaguês (Parish council of Almalaguês), and the Museu e Sede do Grupo Folclórico e Etnográfico ‘As Tecedeiras de Almalaguês’ (Museum and Seat of the ‘The Almalaguês Weavers’ Group of Folklore and Ethnography).

[2] CEARTE (Centro de Formação Profissional do Artesanato) is the Governmental Council for Crafts and Heritage in Portugal.

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