To whomsoever it may concern,

I, Pedro Alexandre Santos Carvalho de Almeida, first author of the article entitled "**Rediscovering Almalaguez: A strategic design approach to a traditional Portuguese hand-weaving technique**" hereby authorize the Coimbra City Council to include this article as an annex to the application for the Europa Nostra Award, in the category "Citizens' Engagement & Awareness-raising," with the project "Almalaguês: Weaving the Future from the Tapestry of Time."

Aveiro, 19 November 2024



Pedro A. S. Carvalho de Almeida (Ph.D, MDes, FRSA)
Assistant Professor of Design, Department of Communication and Art, University of Aveiro, Portugal
Integrated member, Research Institute for Design, Media and Culture (ID+)
Fellow of the Royal Society of Art, UK
pca@ua.pt

Assinado por: **Pedro Alexandre Santos Carvalho de Almeida**
Num. de Identificação: 09836889
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Rediscovering *Almalaguês*: A Strategic Design Approach to a Traditional Portuguese Hand-Weaving Technique

Pedro Alexandre Santos Carvalho de Almeida, Abhishek Chatterjee and António João Fernandes Lourenço Gomes

ABSTRACT This paper presents a collaborative research initiative involving a design approach to *Almalaguês*, a hand-weaving technique from Coimbra, Portugal, possibly dating back to the eleventh century. According to research findings, *Almalaguês* textile faces an uncertain future. The technique remains largely unacknowledged despite its historical and cultural significance, and creative potential—a situation that this initiative aims to address. The associated research culminates in Cortebel® 50, a Brand Archaeology project that pays homage to the industrial legacy of an iconic Portuguese footwear manufacturer, Cortebel®, in its 50th

Pedro Alexandre Santos Carvalho de Almeida is a communication designer based in Porto, Portugal. He is an assistant professor of design at the University of Aveiro, Portugal. He holds a PhD in design (funded by FCT) and has a postdoctoral scholarship for Cultural Engagement (funded by the Arts and Humanities Research Council – AHRC) at Central Saint Martins, University of the Arts London. He is a postdoctoral researcher (funded by FCT) at the Research Institute for Design Media and Culture (ID+) Unexpected Media group, and Central Saint Martins Research. He is also a visiting professor at The Glasgow School of Art, The Innovation School. His research addresses the recovery, organization and use of corporate archives as generative resources for feeding innovation. His previous design work includes brand mark designs, visual identity systems, consultancy, and training for a broad range of organizations in Portugal and the UK.
pca@ua.pt

The research was conducted through a collaboration between: ID+ Research Institute for Design Media and Culture & Central Saint Martins, University of the Arts London; and the PhD Design Programme, Faculty of Fine Arts, University of Porto.

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Abhishek Chatterjee is a PhD candidate in Design at the University of Porto, Portugal. He has an academic and professional background in Footwear and Lifestyle Accessories design. He studied in India and Italy, including NIFT Chennai, IED Milan, and IUAV Venice. He has worked as a category manager for footwear and Accessories at Arvind Brands, India, and completed a postgraduate specialization course at Bottega Veneta, Vicenza. His research (funded by FCT) focuses on developing a new model of design approach based on the Portuguese tradition of improvization known as *Desenrascar*.

António João Fernandes Lourenço Gomes is a communication and product designer based in Coimbra, Portugal. He is an adjunct faculty member at The School of Design, Management and Production Technologies Northern Aveiro, University of Aveiro (ESAN–UA). He is a PhD candidate in Design at the University of Porto, Portugal. His current research addresses the cultural significance and historical inscription of Almalaguês, a traditional Portuguese weaving technique. He has a broad professional experience as a designer in diverse areas of application, including graphic and editorial design, information design, product design, and design of environments and exhibitions in commercial and museological contexts.

year of operation. The objective is to understand locally specific brands and their products in relation to their contextual frame of reference, enabling the discovery of their essence and how they represent local traditions, cultures, and people. The recovered knowledge serves as a generative resource for further applicability in contemporary contexts. In this case, the outcomes include the rediscovery of an ancient culture of weaving in Almalaguês, and its contextual hybridization in a new area of application—footwear. The creative approach involves exercising tenets of Brand Archaeology and Designrascar methods, in an industrial setting beset with infrastructural and resource-based constraints. The methods endorse a hands-on approach to design, and acknowledge both circumstantial constraints and cultural significance as factors that inspire imaginativeness beyond understood thresholds. Within this project, strategic partnerships have been formed with local associations, governmental bodies, industries, and academic institutions, to form a network that can help preserve and sustain the production of *Almalaguês* fabrics.

KEYWORDS: *Almalaguês* hand-weaving, Portuguese footwear, Brand Archaeology, Designrascar, contextual hybridization, product design

Introduction

This paper presents a collaborative research initiative involving a design approach to *Almalaguês*, a hand-weaving technique from Coimbra, Portugal, possibly dating back to the eleventh 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 Brand Archaeology (de Almeida 2012) and Designrascar (Chatterjee 2014: 173–178) in an industrial setting beset with infrastructural and resource-based constraints. Whereas Brand Archaeology aims to recover traditional knowledge and material culture based in industrial heritage which are at a risk of permanent loss, the core objective of the Designrascar approach is to promote the efficacy of "design by doing" (Sinur 2010, cited in Coyle and 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 imaginativeness 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 Herança do Passado*, a not for profit association established to document, preserve and sustain the production of *Almalaguês* fabrics.

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 and 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* fabric.

The solutions are tuned to reutilize existing resources—human resources, materials, iconic designs, industrial equipment, and production techniques—for the purpose of creating new value propositions. In this way innovation lies in the unprecedented hybridization between the particular traditional industries, and the unique manner in which traditional and material culture are recontextualized in terms of product and communication design.

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 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 ninth century BC to the 8th century AD. Records at the Conímbriga 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 organized 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 de Azevedo (1935) 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 twelfth 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: 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: 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 (Figure 1). 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 eleventh century AD.

The Almalaguês looms are constructed from unfinished pieces of poplar stem or branch wood. The practical applications of poplar wood was limited, however it was found suitable for making looms. A unique aspect of these looms is that there are no force-reduction devices such as pulleys. It is also possibly the only Portuguese loom where one works standing up, since there is no provision for a seat in the design. Another distinguishable feature of the Almalaguês looms is their surface, which is left unfinished and unadorned. Also, the counter-weights of the loom, apart from their perceivable artistic and historical value, carry deep social and emotional meaning. As Correia (1912: 3–12) affirms, "these pure and crude Luso-Roman looms are primitive par excellence," and that "without any modifications, they are evident of the most rudimentary industrial expression" (Figure 2).

Almalaguês, being in the midst of heavily forested locales, is a land of lumberjacks and sawyers, and it has always considered the forests as its greatest wealth. Wood from the poplar tree is the principle component in the construction of the looms due to both its abundance in these areas, and the otherwise limited scope of its application. A majority of the other components too are roughly produced by hand, and the only metal parts to be found in the entire construction are the nails which reinforce the structure, and the combs, which in the middle of the twentieth century replaced ones made from hard cane (known locally as *Cana-de-Roca*, or *Cana-do-Reino*).

To describe the components and instruments of the Almalaguês loom is a particularly intricate task for outsiders, since the lexicon used by the weavers for identification is non-standard. Certain nomenclatures are unique and do not even exist in the Portuguese dictionary, while others that may exist, convey a completely different shape, size and attribute from the conventional meaning or object. One such nomenclature is *Vara*, the unit of measurement for *Almalaguês* cloth, that translates to 1.1 m of fabric, sub-divided into five spans of 22 cm each. From the mid-twelfth century, after the uniformization of weights and measures—until when Dom Afonso IV replaced them with the *Alna* or *Côvado* standards in the 14th century—the Vara standard



Figure 1
Hand drawing of the Pomegranate medallion grid. Photo by António João Gomes.

of measure remained widespread (Lopes 2005: 42–48). Thus, while forgotten in other parts, *Almalaguês* carries the unique distinction of retaining this unit of measure to the present day.

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 color, 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 and 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 (1912,



Figure 2
Traditional *Almalaguês* handloom and textile. Photo by António João Gomes.

1914) 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.

Gomes' study on *Almalaguês* assumes that weaving has always been an integral aspect of the land, based on records and evidences transcribed into the local culture in the form of songs, dances, clothing, and proverbs. "I was born under the loom" is one such local proverb which acknowledges infancy spent in a trademark cradle next to the loom. "For each girl a loom" mentions an ancient practice where a loom was offered upon the birth of a girl child. Also, the centuries old tradition of passing familial knowledge in terms of motifs and techniques to succeeding generations demonstrates that ideas of identity and propriety have consequently been built around the custom of weaving. However, despite such depth of tradition and wealth of knowledge, there has been an accelerated decrease in the number of weavers since the 1980s. Hordes of looms have consequently been either abandoned, or dismantled for firewood. It is also common practice to burn looms of weavers who have passed away.

In order to address such concerns, this paper thus draws primarily from the doctoral research of Gomes, 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. His study makes a contribution to the historical inscription of the *Almalaguês* craft, and maps specific techniques and tools, which reinforces the role of designers as mediators between different industries and processes, and also as catalysts of radical positive change in a social context.

The more difficult aspect of the situation has been to address the lack of encouragement which the craftswomen are facing with respect to their craft. Many have iterated their desire to see their craft recognized, while others hope that weaving can bring them financial independence, and freedom from agricultural or domestic chores. At the same time, there has been no significant amount of investment by public entities in the region to acknowledge and consolidate the artform's position as a pillar of popular culture in Coimbra and Portugal. The enormous effort required for its continuation thus falls on a few volunteering weavers, who take time out from their schedules to attend craft fairs around the country, for the purpose of sharing their knowledge. At present, it has thereby become imperative to recognize the importance of promoting the activity that stands largely unknown in Portugal and the rest of the world. In this regard, the national and European legal certification of the craft is under process, which classifies its aesthetic, technological, geographical, and social particularities. Another mode of acknowledgment, as this article propounds, is the introduction of design as a guiding discipline in the requalification, recontextualization, and valorisation of the craft. It also works to promote innovation within products and processes, and bolsters communication and mediation between the weavers and other prospective agents of advancement, such as designers, universities and research centres, vocational training centres, and governmental bodies.

A key partner in this regard has been the Associação Herança do Passado, a local not for profit association, which was established in 2010 for countering a situation of perceived decline, and has since been leading the way in promoting and nurturing the craft through documenting, preserving and sustaining the production of *Almalaguês* fabric.

In addition to providing training and dissemination of the technique, its main concern is to create socio-economically viable conditions, which may prompt current and prospective weavers to accommodate weaving—willingly and conveniently—within their daily scope of activities.

Cortebel® 50 and the Associated Research

This project signals the convergence of three different, and yet complementary research projects that were brought together in an academic context. Interests in Brand Archaeology, Designrascar, and *Almalaguês* traditional weaving configure this research—Cortebel® 50—through informal collaboration around traditional Portuguese footwear manufacturing (Figures 3 and 4).

Cortebel® 50 began as a part of a wider research project, Brand Archives, which focuses on iconic Portuguese sports footwear brands from the twentieth century. It employs Brand Archaeology as a practice-based methodological approach in design and brand identity through the adaptation of graphic design and ethnographic methods (de Almeida 2012: 86).

The approach aims to recover, organize, and utilize entrepreneurial/corporate archives from traditional, long standing industries' brands for mining data that can act as key generative resources for content development and brand innovation. By addressing the relevance of brand archives to companies, designers, and cultural institutions, the approach represents a critique to how the unique cultural legacy of native brands is often overlooked, and tends to dissolve amongst global influences. In this context, the generated wealth of historical and simbolically charged material culture proves a key organisational asset, and a critical resource to feed product development and communication strategies.

The term Brand Archaeology has been used in the fields of strategic branding, marketing, advertising, and fashion. Across these fields, the term refers to drawing on the past of historically rooted companies, as a competitive advantage of brands to perform in the market today (Lindstrom 2006; Daye and Van Auken 2008). However, very little is known about the processes involved and the methods used, and the role which graphic and communication design plays in the overall practice.

Within this project, Brand Archaeology, as a methodological approach, comprises ethnographic research for retrieving tangible objects and historical information (industrial archaeology, visual anthropology, case study research), combined with graphic design methods for decoding/reconstructing visual identity systems (design audit, visual identity programmes). It includes graphic surgery to recover graphic elements, and other visual tools developed for in-depth brand identity analysis (mind-maps, diagrams, chronological tables, and visual matrices) (de Almeida 2012: 87).

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 twentieth century. The aim of the project is to construct and explore Cortebel® physical and digital archives, which are seen as key strategic and generative resources



Figure 3
Brand Archaeology and Designrascar methods in action. Photos by Abhishek Chatterjee (left), Pedro Carvalho de Almeida (right).

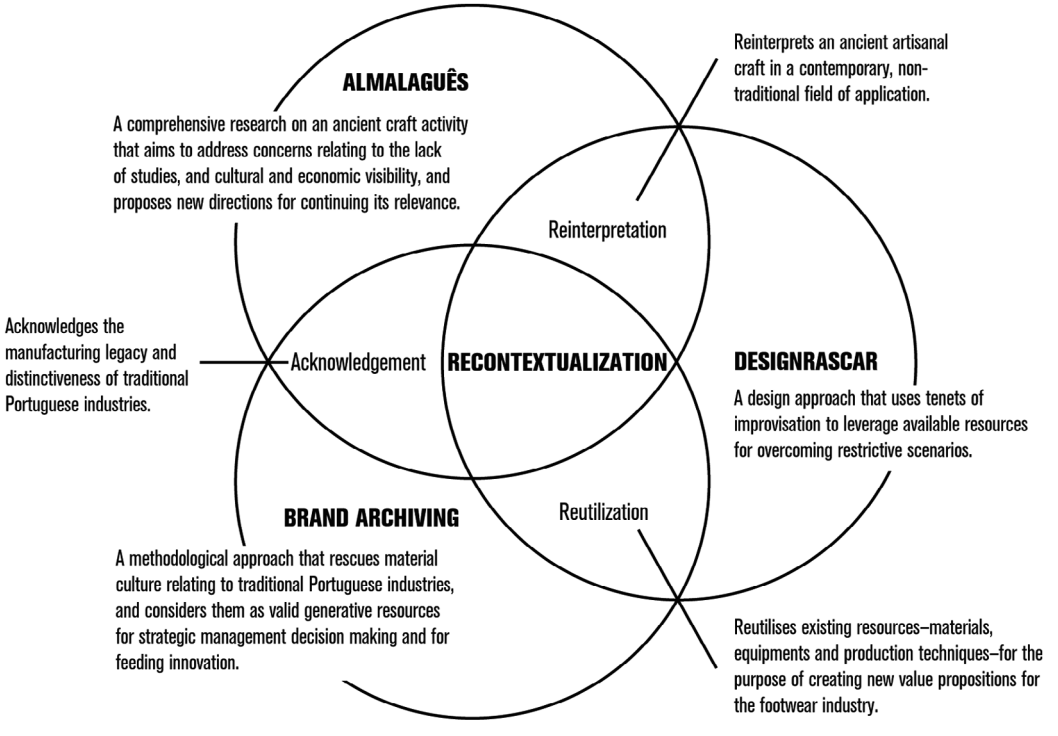


Figure 4
Functional model of the associated research.

for reinterpreting the brand's visual and product identity from its own historical and cultural perspective (Figure 5).

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 (Figure 6).

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® 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 re-vitalisation. 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 (Figure 7).

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® 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 colors and materials. This experiment involved sourcing the said colors 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® 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 heterogene-

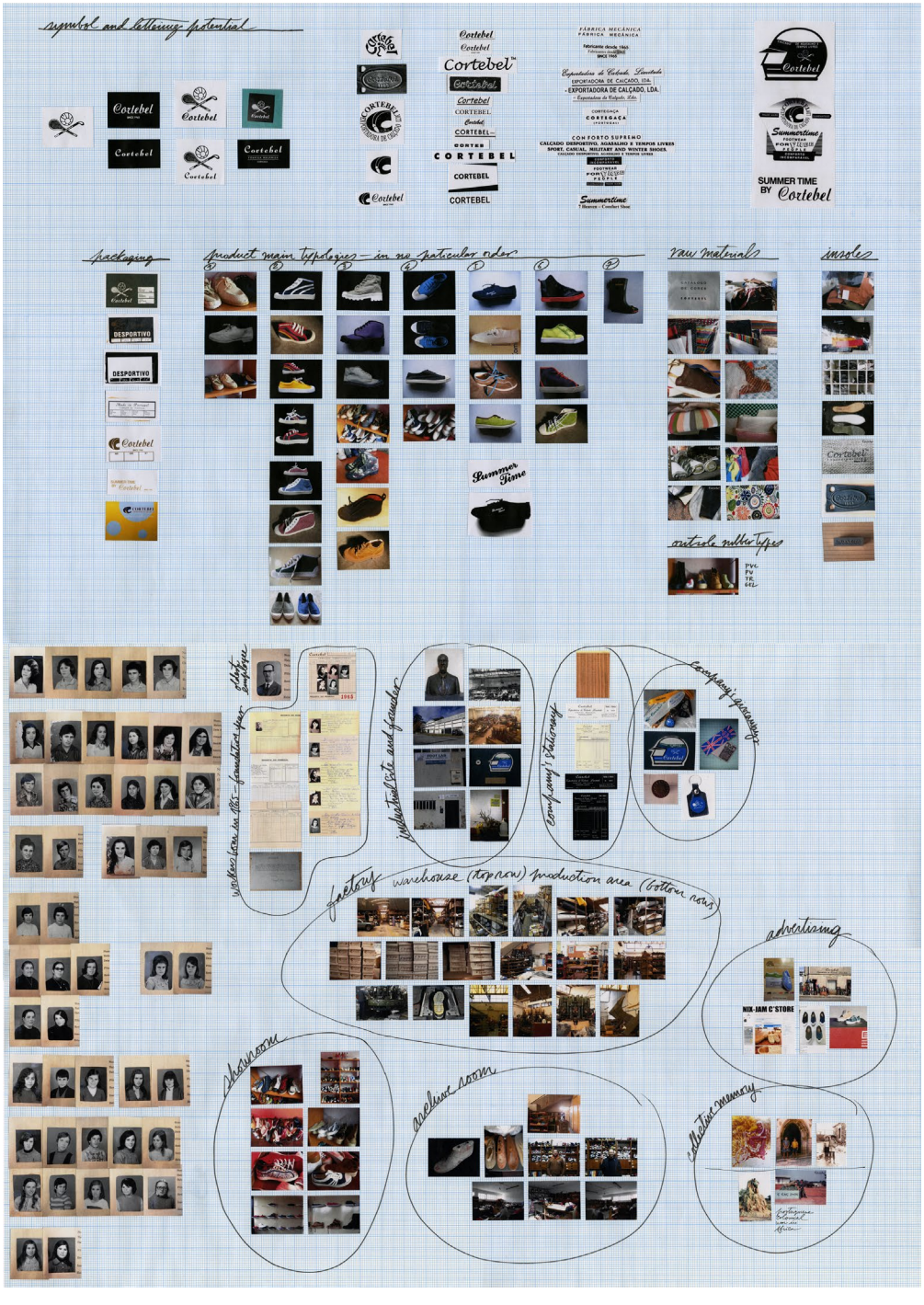


Figure 5
An early Cortebel® Brand Archaeology map created in 2013. © Pedro Carvalho de Almeida.

ous 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 maneuvering. 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 optimize 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 colors, 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 color, 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® industrial heritage and legacy. Correspondingly, new colors, materials, and textures to these styles were sought to be introduced with an aim to reconceptualise their personality while retaining their essence (de Almeida and Chatterjee, 2016).

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 6
Summer Time originals from the 1980s. Photos by Fernando Abel Pereira, courtesy Eduardo Pereira (left) and Cortebel®, courtesy Paulo Albergaria (right).



Figure 7
Cortebel® 50 poster presentation at Ciência 2016, Lisbon. © Pedro Carvalho de Almeida and Abhishek Chatterjee.

Cortebel® 50 in Almalaguês

Cortebel® 50 in Almalaguês thereby, is an intervention process at Cortebel® factory which explores the use of traditional *Almalaguês* weaving in footwear manufacturing. The utilization 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, thus serving to develop a mutually serviceable ecosystem. Such cross-industry partnerships have indeed been established before at Cortebel®, with regard to Portuguese textile 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 ensures that the requirements for constructing long-lasting footwear are met, and hence it is an appropriate alternative to the likes of leather, *Burel*, and tarp canvas as a base material for uppers. The material behaves similar to tarp canvas of medium to high GSM, and its finish-free natural surface particularly allows robust adhesion to injected PVC. The diversity of designs and sub-techniques offer a range of textures and fineness, which has been explored in this project for creative manipulation. It is also simple to apply any kind of backing, such as paper-based interlinings and fabric lining, however, in certain thicker varieties, it is recommended to keep backing to a minimum for injection based construction (Figure 8).

The material is additionally a good fit with footwear manufacturing because *Almalaguês* hand-weaving is also in terminal decline, according to the recent study by Gomes (2016), and a meaningful collaboration with the footwear industry can financially aid the artisans, thereby, maintaining the craft's economic viability. This in turn corresponds to the idiopathic objective of any Designrascar intervention, which is to address real-world needs through relevant, if non-typical associations.

The import of the *Almalaguês* project into Cortebel® 50 in this fashion, thus, signals an unusual collaboration from the view of Portuguese industrial legacy and heritage: the contextual hybridization of two distinct yet complementary activity centres in need of revitalization. The idea of contextual hybridization is operative here, because re-contextualization is observed in terms of both entities, i.e., on one hand, *Almalaguês*—which represents traditional manual weaving—and on the other, Cortebel®—which is comparatively more recent, but is still emblematic of mechanised industrial production from yesteryears, especially if viewed from the standpoint of modern standards. Together, they embody the struggle and yet persisting potential of both entities, and they work in tandem to mitigate the other's shortcomings, while facilitating much-required innovation within their own ambit (Figure 9).

The Human Dimension in a Context-related Research Approach

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.

Visual anthropology methods require researchers to spend a considerable amount of time, often several months or years among the members of a cultural group. Researchers may also be required to engage in informal conversations, and, to some extent, establish trustful relationships in order to gain access to information otherwise difficult to retrieve.

Ethnography and visual anthropology methods applied by the researchers in this case have proven successful in creating an athmosphere for mutual understanding, support and confidence, which facilitated collaboration in terms of gathering information, and in developing experimental ranges.

An Ethnographic Study in Almalaguês

Gomes' study was conducted upon immersion in the locality for a period of four years, which yielded comprehension about the subject, and its accompanying elements. It must be noted here that the approach strictly differs from that of enterprises which use anthropological studies to analyse and interpret consumer behaviour, and isolate variables which can potentially lead to commercial successes. Under a wholly different precept, an extensive qualitative analysis was carried out based on ethnographic methods (Spradley 1980: 193–222), including non-participant and participant observation, which stood better suited to the practical nature of the intervention. During the early stages of the research, several methodological options were experimented with, such as questionnaires and bibliographic research, which were found to be insufficient for forming a well-rounded understanding of the scenario. Instead, approaches such as biographical methods, were preferred where in the life trajectory of a group of weavers was studied in depth to reveal facets of the corresponding reality. A selection of weavers and key informants was thus made to form the locus of the research.

Almalaguês was first approached with an intent for integration and exploration. The research commenced through informal talks and discussions with people who could relate to weaving, in order to obtain a basic comprehension of the region and its crafts. Correspondingly, an idea to structure questionnaires and interviews at this crucial initial junction was toyed with, but withdrawn with the notion that the weavers might feel suspicious or uncomfortable, and may perceive the researcher as distant and intimidating, which could result in jeopardizing the chances of any present or potential proximity. Also, at such a nascent stage, the research was not yet fully prepared to put forward assertive questions, although there were already very few doubts on

the highly fertile nature of the research subject, in consideration of its history, legacy, artistic grandeur, and relative anonymity.

This initial phase of Gomes' investigation regarding *Almalaguês* featured advances and setbacks, which effectuated frequent rectifications. Thereby, the process was not sequential, and oscillated between bibliographic mapping, and the mining of data from oral records. The path eventually lead to broaching different disciplines including design, anthropology and ethnography. Thus, a rigid or pre-determined pattern was not followed, and contrarily, clear preference was given to a research methodology which could prove adaptive, and which allowed the instruments of information collection and analysis to be altered according to realities encountered in fieldwork.

Subsequently, conservative academic methodological approaches were dropped for more informal means to build trust, such as lunches, Sunday mass, and local fairs, which would then translate into primary research sources regarding the craft. One such piece of information which resulted from these means, was an insight into a deep sense of rivalry between different weavers and localities, as a still prevailing consequence of ancient feuds. This information was based on precepts of participant observation, where daily face to face interactions on the ground facilitated an inhibition-free sharing of emotions, confidentialities, activities, and occasions.

Amidst long afternoons of discussion laid moments of joint reflection on the past and future of the craft. The encounters contributed to the development of personal associations and camaraderie with the community, which in many ways were stronger than those between the weavers themselves. The sharing of ancient and contemporary knowledge and heated arguments on technicalities, skills and processes of weaving triggered by the researcher, contributed to gather substancial tacit knowledge associated with the craft.

Industrial Ethnography in Cortebel®

Parallely to Gomes research in *Almalaguês*, methods of de Almeida regarding the archaeology of brands, also utilized ethnographic research for retrieving primary source material.

> In the same way as "trained ethnographers derive deeper insights from observational and immersive research" in the real world (Solomon cited in AiGA & Cheskin, 2006: 6), the inventiveness of the designer can be trained to derive deeper insights from the realities identified within a brand's archive. (de Almeida 2012: 287)

In the case of Cortebel® 50, it has included gathering a variety of data, ranging from visual imagery, to original products, physical objects and testimonies: photographs, graphic elements such as logotypes, symbols, and typefaces, which were used throughout the brand's history. Critically, it has also included collecting life stories, finding relevant peo-



Figure 8
Construction stage of Cortebel®'s *Summer Time* footwear design in *Almalaguês*. Photo by Pedro Carvalho de Almeida.

ple associated with the company, intervewing present and past workers, and also documenting customers' experiences. The information generated has then been extrapolated into content for building historical accounts, which has subsequently informed product development, and can further aid the brand's communication.

In contrast to overcoming differences between cultures, the Brand Archaeology approach uses ethnographic means to uncover what is unique about the brand and it's products. According to Derrida (1996: 36) "creativity is integral to the artist's presence in the archive, the artist keeps open the question of the archive: it is a question of the future itself, the question of a response, of a promise, and of a responsibility for tomorrow". From this perspective, ethnographic research as well as the archaeology of brands is more about the future rather than the past.

A core intention of the project has also been to bring the life stories generated through years of ethnographic research in view, and to convert them into communication artifacts for bridging the gap between production and consumption. This aids in the consideration of objects as beyond mere commodities but rather as instruments to a "context-related materialism" (Csíkszentmihályi and Rochberg-Halton 1981: 231). It also works to close the circle of interaction with the community through the recognition of their practice.

This project has named each footwear prototype after a worker or weaver directly associated in its manufacturing.

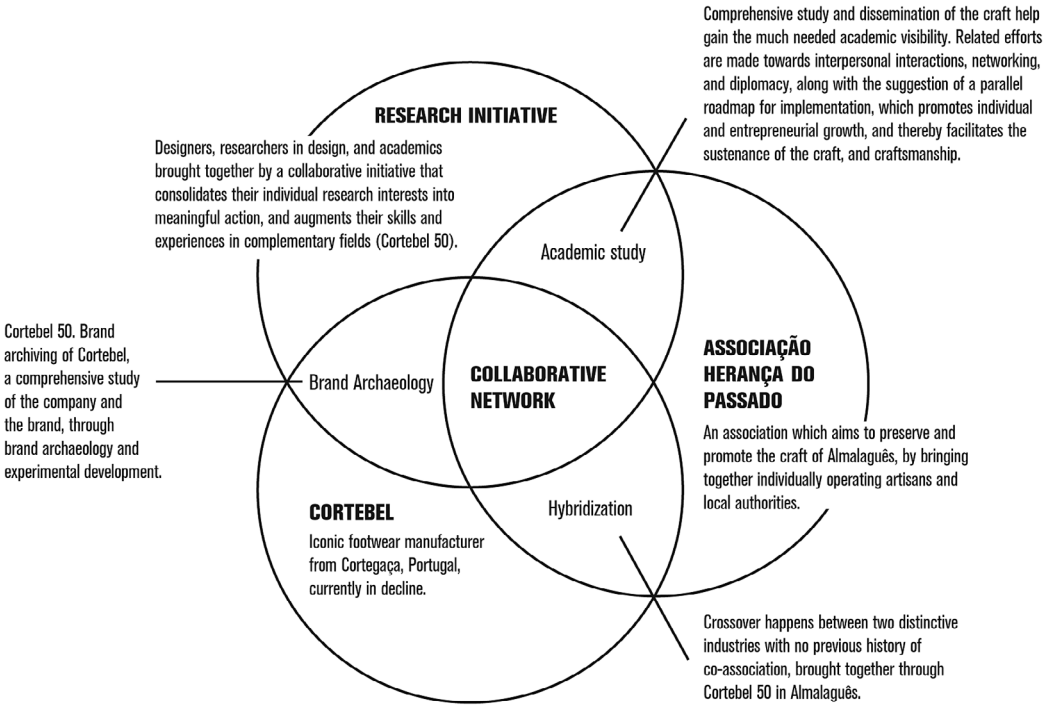


Figure 9
Functional model of collaboration.

Outcomes and Results

The first series of footwear prototypes that were developed, used a batch of sample swatches of *Almalaguês* fabrics provided by the weavers. The respect and acknowledgment given to their practice during this development raised their confidence and interest in the project. This later led to the production of *Almalaguês* fabrics exclusively for the Cortebel® 50 series, with contributions from 17 participating weavers and 6 factory workers (Figure 10).

The Cortebel® 50 series showcases motifs and techniques that are quintessential to *Almalaguês* weaving. In addition, this initiative has helped create a preliminary map of weavers, their corresponding skills, and geographic locations. 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 reinforcing their trust, and 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 also named according to the names of their corresponding weavers (Figures 11 and 12).

Both at the shoe factory 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 their activities. A defining note on the role of design with respect to diplomacy in community engage-



Figure 10
Workers from Cortebel®'s sampling room (top row) and weavers from the Associação Herança do Passado (bottom row). Photo by Pedro Carvalho de Almeida.

ment can be made through emphasizing on how in Almalaguês, this project is currently contributing to reducing differences and establishing an accord between distinct factions of weavers, by boosting interpersonal communication and exchange, with support and complicity of Herança do Passado.

Although efforts have been made in the past to form a cooperative between the weavers, at present the state of functioning is still predominantly individual. Whereas the corresponding competition for limited orders between the weavers has yielded remarkable variety in terms of design and construction related detailing, the setup is not conducive for scaling up, if and when market demand arises. The initiative thus actively pursues projecting the benefits of forming an autonomous association to the weavers, which can meet their common socio-economic and cultural needs by working as a democratically functioning enterprise. The reasoning behind such a cooperative setting is that while ensuring streamlined production and the possibility to handle larger orders from potential clients, it can also function as a single point of contact, therefore facilitating communication and negotiations. Being a cooperative would also imply joint ownership, which would mean that the economic, social, and cultural health of the entity and its members



Figure 11
Indiviudal styles named after the corresponding weavers. Photo by Pedro Carvalho de Almeida.

will be the default priority. In this way, foundations of an internal support system can also be laid which would cater to acute individual needs.

In consideration of the overall design intervention at Cortebel®, and specifically its consociation with *Alamalaguês* weaving, different segments of impact have become evident. A cross-disciplinary platform has emerged from the process, which benefits the footwear manufacturer, the weaving community, and related industries in equal terms (Figure 13).

In terms of footwear production, there has been an unprecedented adaptation of the *Almalaguês* weaving looms to fit the size format of the *Summer Time* pattern designs. A selection of typical motifs has been made, which best represents this weaving culture. Some 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 to the shoe pattern (Figure 14).

The medallion of the Granadian Pomegranate, 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, the medallion has not only been replicated for the first time in the current century, but also has



Figure 12
Weavers from the Associação Herança do Passado holding their bespoke *Summer Time* with self crafted fabrics. Photo by Pedro Carvalho de Almeida.

been 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 (Figure 15).

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 (CEARTE); and other 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 was organized in Almalaguês, at the premises of Herança do Passado, where the weavers and factory workers met for the first time. 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.

In 2017, the project has gained visibility through dissemination in the media and academia. The work featured in a coverage of the weaving culture in Almalaguês by a Portuguese television channel.[1] Furthermore, a paper and an exhibition on the subject were presented at *Intersections: Collaborations in Textile Design Research* Conference in

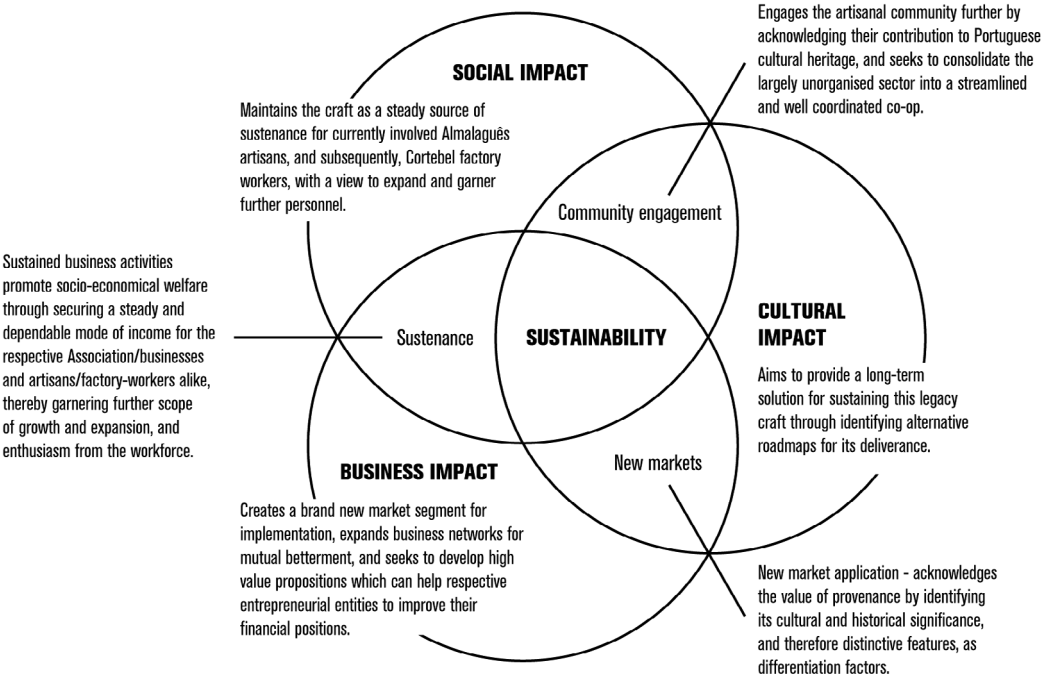


Figure 13
Functional model of impacts.



Figure 14
Selection of *Almalaguês* fabric for the Cortebel® 50 range. Photo by Abhishek Chatterjee and António João Gomes.

Loughborough University London (de Almeida, Chatterjee, and Gomes 2017a, 2017b). The work has also been presented to design students, researchers, and the public, at the doctoral design programmes in the University of Porto and University of Aveiro, The Innovation School –



Figure 15
The assembly of Cortebel® 50 in Almalaguês. Photo by Pedro Carvalho de Almeida.

The Glasgow School of Art, Central Saint Martins – University of the Arts London, and XPONORTH – Creative Industries Festival.

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.

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ORCID

Pedro Alexandre Santos Carvalho de Almeida http://orcid.org/0000-0003-3298-1301
Abhishek Chatterjee http://orcid.org/0000-0002-3830-876X
António João Fernandes Lourenço Gomes http://orcid.org/0000-0001-7003-0895

Note

1. http://www.tvi24.iol.pt/videos/sociedade/tapecaria-de-alamalagues-ainda-vive-e-reinventa-se/5999e1780cf205b-1c6f0db81 (from 10′50″).

References

AIGA & Cheskin. 2006. *An Ethnography Primer*. New York: AIGA.

Caetano, L.J. 1988. *A tecelagem artesanal na freguesia de Almalaguês: elementos para a sua caracterização etnográfica*. Coimbra: Estudos Geográficos.

Chatterjee, A. 2014. *The Designrascar Strategy: Reprioritizing the Design Manifesto*. In Proceedings of UD14, 1 Encontro Ibérico de Doutoramentos em Design, 3 Encontro nacional de Doutoramentos em Design, 29 November 2017, University of Aveiro, Portugal.

Correia, V. 1912. *Velhos Teares do concelho de Coimbra*. In D'a Rajada. Lisboa: Tipografia do Anuário Comercial.

Correia, V. 1914. *Os Pesos do Tear*. Porto: Separata da Águia.

Coyle, L. and Hinchey, M. 2012. *Conquering Complexity*. London: Springer.

Csíkszentmihályi, M. and Rochberg-Halton, E. 1981. *The Meaning of Things: Domestic Symbols and the Self*. Cambridge: Cambridge University Press.

Daye, D. and Van Auken, B. 2008. "Brand Archaeology: The Power in Your Past". Branding Strategy Insider, Blog, 12 November 2010.

de Almeida, P.C. 2012. *Brand Archives: The Rescuing of Locally Specific Brand Identities as a Graphic Design Response to the Globalization of Visual Identity*. PhD thesis, Vol. 1. London: Central Saint Martins, University of the Arts London.

de Almeida, P.C. 2014. *Cortebel 50*. Blog, 17 November 2017.

de Almeida, P.C. and Chatterjee, A. 2016. *Sapatilhas: Cultural Significance and Industrial Legacy*. Poster at Ciência 2016. Lisbon: Ministry of Science, Technology and Higher Education.

de Almeida, P.C., Chatterjee, A. and Gomes, A.J. 2017a. "Cortebel 50 in Almalaguês". In Proceedings of Intersections: Collaborations in Textile Design Research Conference, 13 September 2017, Loughborough University London, UK.

de Almeida, P.C., Chatterjee, A. and Gomes, A.J. 2017b. "Cortebel 50 in Almalaguês". In Intersections Exhibition: Collaborations in Textile Design Research, Exhibition Catalog, Loughborough University London, UK.

de Azevedo, R. 1935. *Documentos falsos de Santa Cruz de Coimbra (séculos XII e XIII)*. Estudos de Diplomática Portuguesa. Lisboa: José Fernandes Júnior.

Derrida, J. 1996. *Archive Fever: A Freudian Impression*. Chicago, IL: University of Chicago Press.

Fonseca, G. and Pires, A. 2007. *Manual Técnico da Tecelagem de Almalaguês*. Coimbra: CEARTE.

Gerli, E.M. 2003. *Medieval Iberia. An Encyclopedia*. London: Routledge.

Gomes, A.J. 2016. *Design, Tradition and Craft: The Case of Almalaguês*. Presentation at PhD Design Forum, UPTEC/PINC, 15 April 2016. PhD Design International Doctoral Program, University of Porto, Portugal.

Lindstrom, M. 2006. "Brand Archaeology: Dig Up Your Past". Incisive Interactive Marketing LLC. Blog, 12 November 2010.

Lopes, L.S. 2005. "A Cultura da Medição em Portugal ao Longo da História. Educação e Matemática," *Revista da Associação de Professores de Matemática*, 84(Setembro–Outubro): 42–48.

Mallalieu, H. 1999. *História Ilustrada das Antiguidades*. São Paulo: Livraria Nobel.

Pires, A. 2003. "Que fazer?" *Revista Mãos*, 22: 22–25.

Spradley, J.P. 1980. *Participant Observation*. New York: Holt, Rinehart and Winston.