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Capturing emotions in the factory: an archaeological analysis of women's lives through industrial photographs in Portugal

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ABSTRACT
Studying emotions in archaeology poses significant challenges, particularly in varying chronologies and contexts. The emotions of women working in industrial sites, often overlooked and disregarded, exemplify this complexity. This paper endeavours to address this gap by exploring the emotional experiences of women within industrial settings. Employing a unique approach, the paper utilises photographs as archaeological artefacts to gather insights into the emotions these women may have experienced. Furthermore, the paper engages in a critical discussion regarding the responsibility of archaeologists in shaping new narratives surrounding emotional actors. By exploring these emotional dimensions, this study seeks to contribute to a more nuanced understanding of past societies and the individuals who inhabited them, shedding light on often marginalised perspectives and experiences.

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Emotions; photographs; industry; emotional communities

Introduction

Emoções, 感情, emotions, *émotions*, *emotionen*, *emociones*, فطاوعلا, емоції, эмоции, *mothúcháin*, *hissiyotlar*, 情緒, and сэтгэл хөдлө are just a few of the possible translations you can get from Google. However, all of them, with a more or less variable sound, have a similar definition. Emotions can be summarised as complex psychological and physiological responses to stimuli, situations, or thoughts that typically involve a mix of feelings, bodily sensations, and behavioural responses. They play a crucial role in human experience, influencing our perceptions, decisions, and interactions with the world around us. Emotions are present universally, regardless of cultural differences or individual variations, wherever there are human beings. Nevertheless, studying emotions is an arduous task. Although we believe this is a universal subject with different cultural characteristics that can be studied in any geographical location, for this paper we decided to focus on Portugal, a territory that the three authors know significantly well. In this sense, the case studies presented here concern women's lives in Portuguese industrial

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environments. This was a challenging task, not only because of the scarce information regarding the two axes of analysis – women and emotions – but mainly because these subjects have been largely overlooked in archaeological analysis in Portugal (Pacheco 2023; Pacheco, Santos, and Casimiro 2023; Santos and Pacheco 2023).

Photographs, as we will argue, are a crucial tool in overcoming these limitations (Edwards 2022, 49). Unlike any other artefact, they provide a visual representation of the photographed subjects, bringing us closer to the individual or collective emotions of the people being studied. This unique feature allows us to perceive several aspects that would not be possible otherwise. However, despite its importance, archaeologists, even contemporary ones, often overlook this potential. Emotions are one of the most challenging aspects to try to understand in past societies (Tarlow 2000, 2012), and by performing an iconographic analysis of these artefacts, as we shall see, we can gain a deeper understanding of them. Nonetheless, analysing emotions using photographs is not without its difficulties. We know some were staged and do not necessarily correspond to a spontaneous action. Often, the expressions would be forced and the people photographed would be obliged to behave in a certain way, pose in a specific position, or have a particular expression. On the other hand, this staging gives us the possibility of emotionally reading the ones who took them. This allows us to follow other paths that are also often ignored – that of decoding the photographers and the message they wanted to convey with their work. These small details sometimes mirror, even better than the faces we see in the photographs, what the mentality of the time was and what photographers wanted to show to their audiences.

This study selected four case studies. They all represent women in factory environments or settings related to large-scale production. This choice was not random. Based on what are typically considered the primary emotions – joy, fear, surprise, sadness, disgust, and anger – or their variants (Ekman 1999), we have identified examples showing how female agents reacted emotionally. We are aware that the notion of basic emotions and the universalistic approach that sustained it is no longer widely defended. Most contemporary scholarship, a perspective we share, understands emotions as both biological and cultural phenomena, deeply shaped by social and historical contexts rather than as universal categories (Boddice 2018; Plamper 2014; Tarlow 2000, 717). However, we have chosen to employ the basic emotions framework, not because we regard it as exhaustive or definitive, but because we see it as a heuristic device that offers clarity and simplicity in identifying visible expressions in photographs. Our use of this framework is thus not intended as a theoretical endorsement of universality, but rather as a practical means of organising the analysis. However, before exploring the case studies, we would like to discuss the importance of photographs, as they serve as the primary source material for our analysis. Additionally, we will provide a contextual background on women in the Portuguese industry. We will then briefly touch on emotions and related concepts to provide a framework for our research objectives. Finally, we will present our conclusions following the case studies.

Methodology

Photographs significantly changed how human beings perceive the past. At first glance, they can be seen as something simple, objective, and reliable about a past event, frozen

when the photographer presses the button and the camera shoots. But, as we argue, photographers always aim to transmit a message. This paper will not treat photographs merely as historical documents or images for iconographic analysis. Instead, we approach them as archaeological artefacts (Hamilakis, Anagnostopoulos, and Ifantidis 2009; Kurnick 2023; Matila 2022; McFadyen and Hicks 2020; Shanks 1997), as objects with materiality, context, and agency. Like pottery sherds, tools, or architectural remains, photographs are embedded in specific chronologies, production technologies, and social relations. Their paper, format, circulation, and archiving are part of their archaeological biography.

Our analysis is framed by archaeological concepts such as materiality, agency, and emotional communities. We examine not only what is represented in the image, but also how the photograph itself operated within wider industrial and social assemblages. For example, staged factory photographs are understood as part of an emotional regime imposed by employers, an interpretive move that draws from archaeological theory about power, embodiment, and material culture. Also, we position photographs within the assemblage factory, which includes technologies, workers, and social structures. This relational perspective extends beyond iconographic interpretation, instead reconstructing how emotions circulated between people, objects, and spaces.

Focusing on the materiality, it brings us closer to what it meant to be human in the past, and that is where we will position our work. These aspects allow us to understand what people wanted from photographs and the level of staging we are dealing with. Photographs are always taken, selected, and organised in different ways, according to their intended narrative and to exert their own agency (Edwards 2022, 110). As such, if we want to understand the importance of photographs in the practice of social sciences, such as archaeology, and in the study of emotions, we have to analyse them as a whole, as artefacts, not ignoring any of the aspects that constitute them. From the photographs we have analysed it was not possible to have physical access to all of them. Some of them were only accessible in their digital form, but even those still have their own materiality. The fact that they are digitised (and sometimes cropped or edited in the process), their resolution, their storage, and the metadata that frame them are all part of their material biographies. As stated by Sue Breakell and Wendy Russell, archives can be interpreted 'as material deposits and aggregations, in both analogue and digital forms, as well as in the material encounter' (Breakell and Russell 2024, 2). As we defend, the same can be said about photographs, which are material deposits or aggregations (particularly the case of photograph albums), both in their physical and digital forms. Also, the authors defend that the 'shared concern with materials and media' benefits the field of archive studies (2). The same happens with photography studies, and particularly in their archaeological analysis.

So, in this article, as mentioned by Yannis Hamilakis, photographs materialise the sensorial and, like all aesthetic-material forms, are naturally political. They are about who has the right to speak, who gets to see, and also show what is sensed and by whom (2021, 671). Photographs are always messages formed by a source of emission, a transmission channel, and a point of reception (Barthes 1977, 15). If we consider this, we must bear in mind that every photograph is made for a purpose, whatever it may be. A photographer always tries to frame their photographs in such a way as to capture the message they want to transmit. The manipulation is quite visible in photographs in industrial environments, like the ones we will

analyse in this paper. It is possible to find photographs in which all the workers are completely focused on their work, seemingly undistracted by the presence of an external element (the photographer), or others in which the factory spaces are presented to us completely clean. However, we know that entering a factory always requires authorisation from the owner. So, everyone would automatically be warned and would have time to get the wanted scenario ready (Monteiro 2013, 581).

All photographs used were subjected to a methodological analysis that conceptualises them as archaeological artefacts according to chronology, context, materials used, and agents involved (Edwards 2022; Edwards and Hart 2004; Rose 2007; Tinkler 2013). These do not derive from a single curated collection. Rather, they were selected from multiple archives and repositories (or even from newspapers/magazines when the originals were lost) that together preserve thousands of images depicting women in Portuguese industrial contexts across the end of the nineteenth century and during the entire twentieth century. Our objective was not to catalogue every possible expression but to explore how specific emotions can be materially and visually traced in photographs. The chosen images exemplify these emotional registers most clearly. They allow us to build an argument about how emotions circulate between workers, employers, photographers, and even the archaeologists who analyse them. Throughout our research, we came across many photographs that contain ambiguous or indeterminate expressions. The four case studies presented in this paper were chosen precisely because they provide moments where emotions are legible, either through individual facial expressions or through the structuring of the scene by the photographer. Given the scale of the photographic record, it would be impossible to address the full spectrum of images or emotions. Therefore, our focus on four case studies is methodological. They serve as illustrative examples of how photographs, when treated as archaeological artefacts, can illuminate emotional experiences.

We also deliberately selected images from different times (before and after the Portuguese Revolution), industries (textiles, pottery, canning, and home-based weaving), geographies, and institutional contexts. This choice demonstrates the breadth of emotional experiences in Portuguese industrial settings and avoids reducing women's labour to a single industrial or geographical context.

It is also important to note that when interpreting these photographs, we have to recognise that the women depicted were rarely active agents in the production of their own image. In most cases, they were portrayed through the lens of others (i.e. employers, photographers, journalists, or state officials), whose interests shaped what was visible and what was concealed. As María Sierra has argued in relation to the Gitanos/Spanish gypsies, photographs can contribute to 'the process of stereotype creation' that in turn can lead to 'marginalisation' (Sierra 2016, 51). Similarly, women in Portuguese industrial photographs can appear as passive subjects, their emotions framed in ways that served external agendas. This highlights the need for a critical stance. When identifying the emotions, we are not accessing an unmediated truth, but rather reading traces negotiated between the photographed subjects, the photographer, sometimes those who ordered the photograph to be taken, and their intended (or unintended) audience. Our analysis, therefore, does not assume that the emotions we discuss are transparent or universally

legible, but rather treats them as sites where gendered power relations, photographic conventions, and emotional regimes intersect.

Women in Portuguese industry

The chronological scope of our research spans from the early twentieth century through the years following the Carnation Revolution of 1974, a period that saw profound shifts in Portuguese industry and labour relations. Industrialisation in Portugal developed later and more unevenly than in other European countries, gaining real momentum only at the end of the nineteenth century, also corresponding to the period in which the number of women working in industry achieved extraordinary prominence. This large number led to their description, observation, and documentation like never before. Industry was mostly concentrated in the north and coastal areas (all of the following case studies are examples of that reality) (Cabral 1988). Women played a central role in this process, particularly in sectors such as textiles, canning, cork, and tobacco, where employers drew on gendered stereotypes of patience, dexterity, and discipline to justify lower wages (Baptista 2012; Cabreira and Macedo 2022). Within factories, women were largely confined to repetitive, low-paid tasks that extended the logic of domestic work into industrial settings (Cruz 2000). Employers reinforced this subordination through surveillance, disciplinary codes, and even the construction of workers' villages, creating overlapping systems of economic and social control (Baptista and Alves 2020). Under the Estado Novo dictatorship (1933-–1974), these practices were reinforced by state propaganda (in which photographs played a fundamental role), which both exalted women's domestic role and relied on their industrial labour, to further accentuate the image of discipline that the regime sought to convey. After the 1974 revolution, however, there was a rapid politicisation of the workforce (including many women), which transformed this landscape. Through strikes, protests, and experiments in workers' self-management, women gained new visibility as agents of change within factories, even if wage disparities and structural inequalities persisted (Suárez 2020).

But as one can imagine, especially until the end of the dictatorship, their activities' convenience, morality, and legality were highly debated (Baptista 2014; Bourke 1994; Sunseri 2020). This happened because they were perceived as being a problem, one that demanded an urgent response. This problem was related to the very meaning of femininity and its compatibility with wage labour. Women were not supposed to work in factories. Their role was supposed to be at home, taking care of the family (Scott 1991, 443).

However, even if they were given more attention, aspects related to their identities (individual and collective) were usually ignored. In Portugal (but not exclusively), industrial workers (of all genders) are frequently studied as a collective entity. Repeatedly treated as emotionless machines or gear wheels, part of a production chain essential to make the factory system work properly, but as if their existence could be summarised as that. They are also discussed as numbers, percentages, or dots in maps (Pacheco 2023, 187). Studies focusing on individuals, their identities, and their emotions are hard to find. This opposes how factory owners were seen, about whom we can find several written papers or books. On the other hand, the ordinary people who worked in those settings never had the same level of exposure.

Internationally, as noted by Lucy Taksa, the impact of industrial heritage on men and masculinity is a highly explored subject. According to the author, when a study refers to the 'workers' without any other specifications, there is a tendency to assume them always as 'males'. For society, in general (in Taksa's point of view), 'femininity is often specified, by name or highly explicit conventions around embodiment, whereas masculinity literally "goes without saying"' (Taksa 2020, 203). The Portuguese reality is no different from this. Most Portuguese archaeologists who study industrial contexts tend to ignore individuals in general and women in particular.

Several arguments are used to justify that absence, especially in the Portuguese reality. The lack of archaeological evidence or written sources is among those. But even if those elements are missing from the archaeological contexts, should they also be erased from the historiographic speeches? Should their emotions be ignored entirely when writing narratives about the past? Several studies have been developed regarding gender in the last decades. Nonetheless, as Marianne Moen noted, 'Questions of gender remain on the margins of many archaeological enquiries' (2019, 207). And if this is true for archaeological studies in general, then for those regarding industrial environments this sentence gets a whole new meaning. Regarding industrial archaeology, the study of women as part of the communities is yet to be discussed on a large scale. This lack of research, as Marika Hyttinen and Titta Kallio-Seppä pointed out, has marginalised this group as members of a community, even if we have evidence of their presence and participation in those societies (Hyttinen and Kallio-Seppä 2022, 663).

So, it is not enough to analyse their presence and relevance in the societies they lived in only by examining their lives inside the factory units during the hours their shifts lasted. Women who worked in the industry were also human beings with identities and lives besides their working situations. In some cases, as we will see, they did not even need to work inside a factory to work for the industry. One of the main points emphasised in this paper is the importance of understanding these agents as unique individuals, each with their own identities and experiences of varying emotions in diverse situations.

We are prepared to accept the criticism that an archaeological reading of emotions in industrial environments is an audacious approach. Due to the proximity with these women, we put much of ourselves into it, reacting as human beings with our political, cultural, and even emotional characteristics to the subjects we analyse. We assume that the archaeology that motivates us is political, activist, and emotional.

Emotions

Studying emotions – even through photographs – is perhaps one of the most complex investigations in archaeology. They are challenging to study nowadays when we have direct access to them. They are even more daunting when studying the past when the only things we have left are fragments of those experiences (Lyons 1999, 236). This complexity is probably the main reason why most archaeologists continue to ignore emotions in their research (Hannesdóttir 2022, 70; Harris and Sørensen 2010, 145; Tarlow 2000, 713; 2012, 169), arguing that they are impossible to recover through archaeological materiality and are too subjective (or even speculative) (Harris and Sørensen 2010, 145).

Emotions are not just the effect of history but, regardless of our will, have a significant place in the construction of historical narratives, along with reason and sensation (Boddice 2017, 11). These emotional experiences shape human actions and behaviours (Tarlow 2000, 179) and will be reflected in the materiality that we, as archaeologists, study. 'Emotions are materially constituted and material culture is emotionally constituted' (Gosden 2004, 39). Therefore, if we genuinely want to understand how people and objects, in our case photographs, exist in the world, we must engage with emotions, and study them (Harris and Sørensen 2010, 146).

This engagement requires acknowledging that archaeology is only one part of a much wider conversation. The history of emotions has been developed most extensively by historians and anthropologists, from Febvre's call for a *histoire des sensibilités* (1941), through Stearns and Stearns' emotionology (1985), to William Reddy's concepts of emotives and emotional regimes (Reddy 2001) and Barbara Rosenwein's emotional communities (Rosenwein 2006). More recent syntheses (Barclay 2020; Boddice 2018; Plamper 2014) and surveys from psychology (Barrett, Lewis, and Haviland-Jones 2010) have further shown how emotions can be understood as historically situated, socially embedded, and culturally mediated. It is within this broader field that our archaeological approach situates itself.

So, how can we do it? Photographs can give us information about past emotions in a way that could hardly be achieved through other materialities. To simplify our investigation, we will use a concept baptised by Barbara Rosenwein (2002, 2006, 2010) regarding the emotions felt by different social groups, 'emotional communities'. These communities are groups of people with common interests, values and goals (Rosenwein 2006, 24).

The first of these emotional communities are the people portrayed. In our case studies, the women who worked in the Portuguese industry. How did they feel? How did they interpret their position in the factory, if they did it at all? What differences existed between people from distinct industries or even between different sections within the factory? And between different hierarchical levels? And geographically? Are there any differences between the north and the south of Portugal? Photographs alone would probably not be able to give us a global perspective on the situation or answer all of these questions. This increases the importance of adding other types of information to the photographs to 'ensure that archaeological material is not studied in isolation, but in relation to the more explicit, textual evidence, so that one may illuminate the other' (Masseglia 2012, 138).

A second community is on the other side of the lens; that is, those who took the photographs (or commissioned them). This is a particular community. William Reddy (2001) baptised it as 'emotional regimes'; that is, a political or administrative force that guarantees (or tries to guarantee) that certain practices, rituals, and emotional expressions follow what is intended. Unfortunately, people often internalised the imposition of practices, without even realising it. What would these regimes feel? In our opinion, one of the ways to interpret how they would feel is through what they would like others to feel, in this case, the women who were being portrayed. As Erich Fromm said, quoting Spinoza, 'What Paul says about Peter tells us more about Paul than about Peter' (Fromm 1950, 56). Through a careful examination of photographic images, it is possible to gain insight into the individuals portrayed and the photographer's motivations. This approach enables us to discern the intentions and artistic vision of the photographer, as well as the social or cultural context in which the photograph was created.

Sarah Tarlow states that the study of emotions should be from the perspective of 'social emotional values rather than individual (because they) may be of greater interest to archaeologists and will also be more accessible to archaeological study' (2000, 728; 2012, 169). On the other hand, we believe that photographs can capture individual emotions, which are felt at the exact moment when the photographs were taken. This makes photographs a materiality with particular characteristics we should take advantage of. Neurological studies have revealed the importance of analysing facial expressions to understand the emotions of those being analysed (Baron-Cohen et al. 2001; Masseglia 2012, 134). This facial analysis is possible through photographs, and even imagining that certain photographs were staged, it would be very difficult to provoke certain facial expressions. This brings us closer to what the people being photographed were feeling at that very moment.

Finally, as Sarah Tarlow says 'there is what one might call, rather than the archaeology of emotions, emotional archaeology, the acceptance and even celebration of the subjectivity and emotion of the archaeologist' (2012, 178). What should we feel, as archaeologists, when confronted with certain materialities? What should we think about how the people we are studying, the women in factories, felt and thought? Is it our duty, as archaeologists, to try to feel what they felt, falling into the trap of anachronism? Even if this approach turns into something political, precisely because we see injustices where they possibly were not felt. Did these women feel injustices in the way they were treated, or were they emotionally 'corrupted' and subjugated by the 'emotional regimes'? Although not answering all of the questions, we believe that the case studies we bring here will shed some light on this subject.

Case studies

For decades, the belief that women were more emotional beings than men was one of the most consistent stereotypes associated with gender (Plant et al. 2000, 81). However, even though this is only a stereotype, this aspect continues to be undervalued by the archaeological community. Women's emotions –like men's emotions, we might add – although growing in the last years, are still a reduced part of the global archaeological agenda (Harris and Sørensen 2010, 145; Tarlow 2000, 713; 2012, 169). We want to help close this gap, by questioning, through an archaeological analysis of photographs, the way emotions were felt in the past.

The first emotion we would like to discuss is joy. We debate the picture (Figure 1) of a woman, a worker at Sogantal (Montijo – south of Lisbon), laughing as she worked on a sewing machine, her companion for hours, days, months, or even years.

Without knowing her name, we know that the woman, at that particular moment, was experiencing genuine happiness. We do not know why she was laughing with such conviction. However, one thing we believe is that facial expression was not manipulated. It was not faked for the moment when the photographer shot the camera. Without this photograph, we would never have access to this information. It is this emotional individuality that we are searching for by studying photographs. We get to know them better and relate more with them as if we were there. After all, they are emotional beings, just like us.

Figure 1. Worker from Sogantal (Source: Sindicato dos Trabalhadores Têxteis, Lanifícios, Vestuário, Calçado e Curtumes).

However, day-to-day life in a factory was not all happiness, especially for the women who worked there. While the photograph of Sogantal was taken at an uncertain moment after the 25 April 1974 revolution, if we go back a few years or decades we can observe a completely different story, filled with utterly different emotions. One photograph (Figure 2) shows us Herber Edward Over Gilbert and Leland Herbert Gilbert visiting one of the sections of the Fábrica de Loiça de Sacavém, of which they were the owners.

The presence of two men in suits and ties, looking stern and maintaining an austere posture as they watch a group of women working in one section of their factories, immediately stands out. This photograph was taken in the 1950s (Archive of the Sacavém Pottery Museum). Even if the facial expressions of these women are not completely visible, because probably that was not the photographer's goal, we can easily imagine the fright and anxiety they might be feeling at the moment the shot was taken.

Even if this is most probably a staged photograph, something we can realise from the body language of the men and the formal posture of the woman in the background, it allows us to decode a little more of the identity of all the elements represented in that

Figure 2. Herbert Edwards Over Gilbert and Leland Herbert Gilbert visiting the Fábrica de Loiça de Sacavém (Source: Sacavém Pottery Museum).

factory context. The industrial operating model that was considered ideal, focusing on large-scale production, is thus evident in the emotional imposition of the owners and managers of the industrial units. They imposed not only a labour regime but also an emotional regime, motivated by the fear of losing their jobs (Thompson 1991).

So far, we have analysed two completely different realities in Portuguese factories. The first intended to show the happiness of an anonymous worker, while the other intended to show how an emotional regime wanted their employees to be seen as an 'emotionless army'. However, despite their intention, we believe it is possible to understand what those women might felt.

Another emotion that we can see in the photographs is love. At first glance, it is not the emotion we might expect in a factory. Still, it manifested between couples who worked there, parents and children who shared the same workplace, or people who developed a strong friendship bond. One of these situations would be a moment of unconditional love. From the first quarter of the twentieth century onwards, it became common practice in factories that employed many women to create childcare centres. There, a specific emotional community, women with small children, could leave their babies during their working shifts. The existence of childcare centres freed them to continue working, allowing them to be more focused on their tasks and closer to their children when they needed to breastfeed. A photograph taken at a factory in Portimão (Figure 3) shows that moment.

Once again, although the faces of the women represented are not all visible, it is possible to realise the love these women felt for their children. Taken at an unknown date, sometime before 1938, when the world (and Portugal was no exception) witnessed the rise of dictatorship movements, this photograph shows us a moment in which, for this

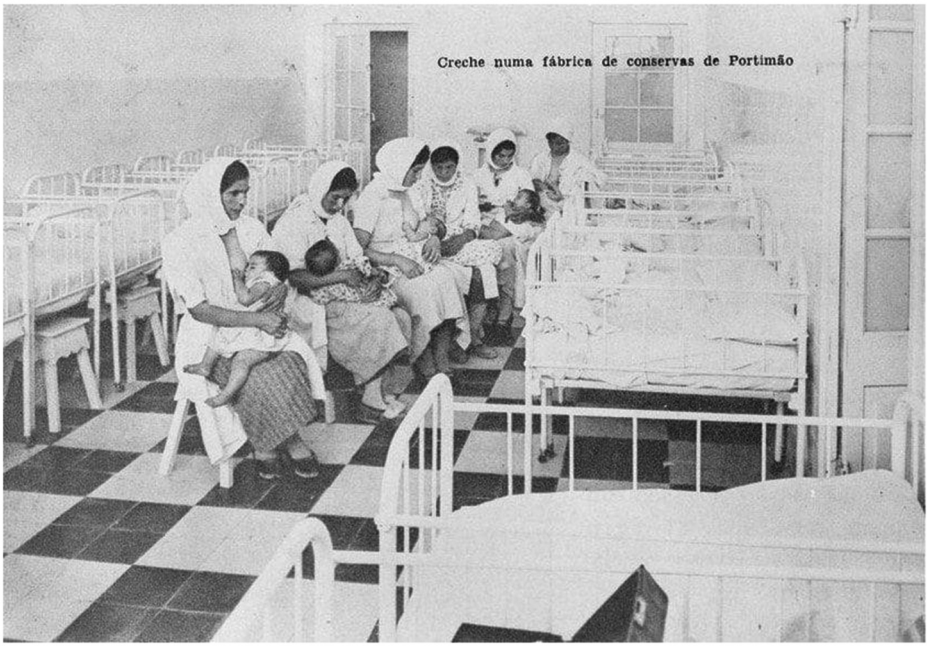

Figure 3. Childcare in a canning textile factory in Portimão (Source: *Livro de Ouro das Conservas Portuguesas de Peixe*).

group of working women, nothing else seemed to matter more than satisfying the needs of their children. At the same time, however, we must acknowledge that other emotions may also be present. The women's averted gazes and formal postures may suggest a degree of unease, possibly shame, discomfort or even resistance, at being photographed during such an intimate act, likely by a male photographer. In this sense, the image encapsulates the coexistence of emotions: maternal affection, love, and tenderness on the one hand, but also anxiety provoked by the external gaze and the staging of the scene.

This duality reflects the tension between emotional communities and emotional regimes. While the mothers and children embodied an intimate community bound by care and love, the photograph itself was almost certainly staged to convey the image of a benevolent 'emotional regime' (employer and the broader industrial system) that spent money on behalf of their female workers and their families' well-being. Thus, even as the women's genuine emotions towards their children emerge unmistakably, their body language also reveals pressures of a regime that sought to control how such emotions were displayed. The result is a layered image, where love and subjugation, tenderness and unease, can be read simultaneously.

Finally, we would like to talk about sadness. One might wonder whether it is possible to detect this emotion since so many photographs were staged to convey a message and emotions opposite to that one. The following picture indicates that it is possible. This photograph (Figure 4) shows a weaver in a domestic environment. This is no surprise since it was common for women to work from home in the Portuguese textile sector (Cabreira and Macedo 2022). Sometimes, they even did it for a large or

Figure 4. Woman working on a loom (Source: Figueira da Foz Municipal Photographic Archive).

medium-sized company. The bosses would get them a loom, which would be installed in their homes. From there, they would carry out their work, which would be paid by the piece.

This payment strategy forced women to work much longer hours than they usually would in a factory. Money was necessary to face domestic expenses, so the pieces needed to be finished quickly. Given this reality, it is not surprising that these women were often exhausted and experienced great sadness, as this photograph seems to illustrate. We do not know if this was the cause, but all her facial expressions show enormous sadness. Probably, this photograph has also been staged. However, allow us to highlight one element where her sadness is more visible. One that the photographer's lens could not hide. Her eyes. Those individual emotions can only be captured in a photograph. This haggard-looking woman, with many visible wrinkles on her face, apparently really focused on making sure that nothing would go wrong with that piece, shows one of the saddest looks we have come across among the thousands of photographs of women in the Portuguese industry we have seen so far.

Beyond their visual content, the four case studies also highlight the material dimensions of the photographs themselves, which is an essential part of our archaeological approach. Figure 1, a positive print on resin-coated paper preserved in the archive of a textile workers' union, is the only example we were able to examine physically. Its materiality reveals signs of use, such as handwritten notes on the front and back (possibly editorial instructions, suggesting cropping for publication, in the front, and in the back, some indication, not completely perceptible, for the union workers or archivists), worn corners with ink loss, folds, and multiple creases. These traces indicate that the

photograph had an active life beyond its initial moment of production, circulating as a working object within union or publishing contexts.

By contrast, the remaining photographs were only accessible to us in their digital format and from their recto sides, yet these too possess materiality, as discussed previously. Figure 2, for instance, belongs to the Sacavém Pottery Museum, where the physical object is stored and preserved but, for conservation reasons and to make it accessible to a broader audience, it was digitised (and made available online). This act of digitisation not only ensures preservation but also highlights the relevance attributed to the image by the institution, adding a new layer to its biography. Differently, Figure 3 was originally published in a propagandistic volume (*Livro de Ouro das Conservas Portuguesas de Peixe*) and then also digitised and made available online. In its original context, the image served the ideological aims of the Estado Novo regime (nowadays it is used by many – in Portugal we call them *saudosistas* – to promote the dictatorial regime; while others, in which group we are included, look at it with critical eyes and try to deconstruct its original narrative). Figure 4, from the Figueira da Foz Municipal Photographic Archive, also survives primarily as a digital object accessible in their database (in this case, we are not sure what happened to the physical object). In these cases, while physical traces of use remain uncertain without direct examination, the digital format itself is not neutral but constitutes a new stage in these photographs' biographies. The geographic spread of these examples, from Montijo (Figure 1), Sacavém (Figure 2), Portimão (Figure 3), and Figueira da Foz (Figure 4), underscores that these photographs were part of diverse local industrial contexts and archival trajectories. Attending to their formats, states of preservation, and modes of access (whether physical or digital) is fundamental to situating them as archaeological artefacts with biographies of production, circulation, digitisation, and reuse, rather than as disembodied images.

Conclusion

In this paper, we have considered different perspectives in the study of emotions and their relationship with spaces, people, and things through a materiality that has been little explored from an archaeological perspective: photographs. When we look at photographs as archaeological artefacts, that relational capacity is even greater because of the peculiarity of this type of materiality, which allows us a collective emotional reading and an individual one. These two perspectives are as antagonistic as complementary, since while the individual manifests emotions per se, communities or emotional regimes mould, influence, and manipulate them. We have seen these emotional communities in the groups of women workers and mothers we analysed here, but we could have looked at many more. As for the emotional regimes, these are perfectly observable in Figure 2, where the presence of austere male figures provokes fear and anxiety in a group of women. But it is also visible in Figure 3, where the photographer intends to transmit an idea of benevolence, not only from the bosses but from an entire dictatorial regime.

However, two other emotional perspectives cannot be ignored when analysing photographs. The first is from the producer of the photographs. The photographer leaves us what their eyes have seen and planned to transmit. The way a photograph was planned or constructed allows us to understand their emotional relationships with the space and the

other agents of the action or event. The other perspective is related to our emotional perception as archaeologists and how these photographs affect us and make us react emotionally. As archaeologists, we are fundamental agents in constructing narratives about the past. So, we cannot ignore how we feel, even if it is opposed to what those women would have felt. 'We have to make archaeology political again [. . .] We need to go back to the roots of politics – radical dissent, conflict, inequality – and reconstruct archaeology as a public engaged practice to make it a truly critical voice in the global stage. (Gonzalez-Ruibal, González, and Criado-Boado 2018, 513–514) In our opinion, archaeology is either political or nothing, in a way that it is inevitably embedded in political, social, and ethical contexts. Nonetheless, we acknowledge that this statement can be read too rigidly. There is, of course, valuable archaeological work that does not directly intervene in contemporary political debates, but even such work is nonetheless carried out within broader political frameworks, through funding structures, heritage management, or public narratives about the past. Our point here is not to dismiss apolitical research, but rather to highlight the potential of archaeology, especially of the contemporary past, to act as a critical and engaged practice.

This brings us to the photographs themselves. Most of the images we discuss currently rest in archives. Some appear in museums (often with minimal contextualisation), while others survive only in newspapers or other periodicals. In this sense, they remain largely absent from wider public debates about the past and particularly women's history. By approaching them archaeologically, we seek not only to analyse their emotional content but also to argue for their relevance as artefacts (or sources) that should be made more visible. Our discussion of politics therefore applies both to the discipline and to the material. Archaeology as a discipline must remain attentive to the issues of power and inequality, and the photographs themselves carry political weight in how they are preserved, displayed, or neglected. Making them accessible and critically interpreted in public contexts could challenge entrenched narratives that continue to marginalise working women's lives and emotions.

The factories were complex spaces where a whirlwind of emotions could be felt daily by the various people who spent their lives there. Many factors influenced these aspects, including the sections in which they would be working, the positions or the type of tasks they performed, and identity aspects such as people's gender, age, ethnicity, socioeconomic status, and family background, among so many others. It is unthinkable and undesirable that an archaeological analysis of these spaces does not consider the emotional perspective that they motivated both at the time the events portrayed in the photographs took place and now, where our modern inferences, although scientifically supported, cannot be aseptic from an emotional perspective. That would mean that we, as archaeologists, would only be concerned with the exhaustive description of the contexts, without any concern with what makes these women, both individually and collectively, agents that need to be known and promoted.

Finally, while many of these emotions and working conditions captured in these photographs resonate with broader, even universal, aspects of women's industrial labour worldwide, such as exhaustion, fear of surveillance, or affection expressed through childcare, the Portuguese context adds specific layers that shape how these emotions were experienced and represented. Portugal's late industrialisation, the prominence of women in certain sectors (like textiles or canning), and the strong influence of the highly catholic

and conservative mentality during the Estado Novo dictatorship all created a distinct emotional and political regime. For example, factory childcare centres (as in Figure 3) were not only responses to the practical needs of working mothers, but when existing were also part of the state's paternalistic discourse about women's roles and morality. Similarly, the visibility of factory owners in staged photographs (as seen in Figure 2) reflects both a universal pattern of managerial control and a particularly Portuguese concern with representing industrial modernity within an authoritarian framework. Thus, our case studies highlight how women's emotional lives in Portuguese factories were shaped by both transnational dynamics of industrial capitalism and local socio-political conditions, producing a complex interplay of the universal and the specific roles of women and their emotions in industrial contexts.

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