Weaving Ensembles
Remembering and Finding Stories for the Factory

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Introduction

The recent use of oral history in architectural research has started to focus on the potential of using testimonies and spatial memories as evidence for architects when analysing and imagining places.[1] Many studies that engage with oral history have made efforts to voice and listen to the unheard. However, the topic of how acts of remembering and finding a place's stories can operate outside of the interview,[2] a sometimes constrained model, has yet to be thoroughly addressed in practices of architectural fieldwork.[3] For instance, oral historian Lynn Abrams states that the interview 'often receives the least attention in oral history theory'.[4] Many architects have used the interview as an analytical tool to examine a place's stories, and this essay does not intend to deny the validity of the interview as a suitable technique. Interviews are undoubtedly effective means of communication and valuable practices for finding narrative evidence in many interdisciplinary studies, including architectural fieldwork. Instead, this essay aspires to challenge and push further the performative aspects of the interview: from a short-

term and singular act enacted between the interviewer and the interviewee, where the interviewer often takes more than they give, to a more long-term, giving, messy and 'incorporated' practice of conversational making. Following these arguments, the essay builds on long-term practice-based research developed around Coelima, a textile factory complex founded in 1922 on the outskirts of Guimarães in Portugal, to explore the performative qualities of weaving ensembles as alternative practices of fieldwork that 'interview' through making.

Coelima: a Factory in Motion and a Missing History

Coelima is located in Vale do Ave, in the north-western part of Portugal. It is what one could call a 'factory in motion': an industrial complex that, despite being productively active, interacts with social and spatial processes of dismantlement. This definition includes a group of historical textile factories, built during the twentieth century in the Vale do Ave, that are in a precarious state due to a combination of global and regional economic factors, such as recent deindustrialization, cyclical economic crises in the textile industry and fragile systems of industrial management.[5] However, while the social sciences have been revealing and debating the new social challenges of the Vale do Ave region,[6] there is still little architectural fieldwork being done in such factories in motion that are spread throughout the area.

In this context, one may state that Coelima represents a compelling case study of a factory in motion. Not just because it is rich in historical and narrative evidence, but also because it has been undergoing processes of dismantlement over the past decades, under the passive eye of local citizens, governance bodies, planners and architects.[7] Although the factory was founded in 1922 by Albano Coelho Lima as a family company, in 1991 Coelho Lima sold the factory due to a deep economic crisis that affected the entire region of Vale do Ave. As a result, the factory has gone through several changes since then, including the progressive closure and sale of some productive buildings, the abandonment of its community buildings,

Fig. 1. Coelima, Pevidém, Portugal. Photo: Liliana Fontoura, 2020.

which were once an essential part of its workers' social lives, and the progressive dismissal of textile workers. Indeed, one could argue that Coelima is neither a post-industrial nor a highly technological site of production. Instead, it is a hybrid place, living between decay and production, an unstable socioeconomic present and an ambiguous future. Moreover, there are no written records of Coelima's history after the crisis in 1991. One may affirm that the factory's recent history appears only in the workers' memories, to be remembered through loss, contempt and uncertainty.

Following the absence of narrative evidence, this essay argues that if architects and local agents begin to engage with the factory's stories, it may be feasible to better comprehend Coelima's past, deal with its present and reimagine its future. Therefore, this essay proposes to explore weaving ensembles as a series of 'incorporated memory practices' to find and remember the memories of Coelima's workers, not only to fill the factory's historical gap but also to open up and imagine hypothetical possibilities for its future.[8]

Weaving Ensembles: Finding the Missing Stories of the Factory
The word 'ensemble' refers to the gathering of separate things, people and actions in one location to form a unified whole. In Coelima's context, I use the term ensemble to allude to a collective gathering of weaving with spatial, affective and temporal dimensions that is connected to the social and political life of its buildings. However, it is essential to recall that to investigate weaving as a practice in order to find the factory's recent stories was primarily, but not exclusively, site-specific. Although weaving is the driving force behind the labour performed at Coelima, weaving was also a means to recognize a practice embedded in the textile rituals, industrialized or not, in the Vale do Ave region. In addition, we should not forget that weaving is an ancient art practised by a wide variety of cultures worldwide that serves as a language and as a vehicle for humans to express, process and store information.[9] For instance, philosopher Kathryn Kruger argues that

textiles are one of the earliest forms of text, recalling that 'the written text is a recent form of textile, ancillary to those primary texts "told" or "tooled" in cloth'.[10] As such, one may affirm that textile practices have long been used as an 'art of memory', practised to remember stories.

The weaving ensembles around Coelima were created and organized collaboratively with a group of six retired women, former textile workers. From 2019 to 2021, the workers committed to learn how to weave by hand, while sharing their memories connected to the factory's life. The ensembles promoted acts where learning to listen effectively and how to discuss things with each other became the foundation for creating a 'cooperative' environment, as to remember and find stories.[11] In the following lines, I explain how two cooperative aspects of weaving ensembles – the exchange through which the craft is learned on a redesigned loom and the duration of the weaving process – can offer new insights to consider in finding places' narratives.

Weaving Systems to Find Stories: Loom, Exchange and Duration
More than promoting a conversational process without giving anything in return, the design of weaving ensembles seeks to galvanize a process of reciprocal giving through craft cooperation, an exchange process in which all participants of the ensemble – myself, the workers and others – could benefit from the encounter. Here, I use the term 'exchange' to recall that weaving ensembles promote spatial and temporal dynamics of giving and receiving skills, stories and tacit knowledge.[12]

Moreover, a specific tool was required to enact the weaving ensembles: the loom. A loom is a hand-operated or electronic machine of which the primary principle is to hold the warp threads in tension to enable the interweaving of weft threads, thus creating a weave. Although the loom has symbolic meanings related to domestic spaces in cultures that go beyond ancient Greece,[13] I do not wish to hold onto the loom's nostalgic pretensions.

Fig. 2. Pevidém, Portugal. Photo: Fernando P. Ferreira, 2020.

Fig. 3+4. Pevidém, Portugal. Photo: Fernando P. Ferreira, 2020.

Instead, and inspired by artist and weaver Anni Albers's teaching experiences at the Black Mountain College,[14] I returned to the ancient weaving modes on a backstrap loom[15] and redesigned it into a double backstrap loom.[16] One might say that this loom typology only operates with the bodily presence of another.

Nevertheless, it is vital to comprehend that weaving with the loom brought other rewards. First, the portability of the backstrap loom, in contrast to most looms that are difficult to carry, permitted moving the weaving ensembles into the public spaces around Coelima. Second, setting up the backstrap looms and weaving in public attracted more encounters beyond the pre-established group of female workers. Many local voices – workers, local citizens, agents and governance bodies – joined in a process where memories and stories did not always fit together as a group, but instead were dynamic as a 'polyphony', agreeing or clashing with one another.[17] For instance, when discussing the effects of recent successive changes in the factory's administration, workers contradicted each other:

> *RM: I didn't feel any differences at work after the change in administration, because we dealt with those in charge and had a good relationship with them.*

> *M: I don't agree with that. I noticed a lot of differences, even though I didn't know the administrators. Since we stopped knowing the bosses, I felt it was very different. For example, the work was much more demanding and under more pressure.*

Within this view, one might consider the loom as a 'dialogic' machine that enabled cooperative processes of communicating human stories, accepting confrontation, contradiction and agreement.[18] Furthermore, the double backstrap loom can be replicated and rearranged differently in any public space. In that case, one can argue that these looms can choreograph dif-
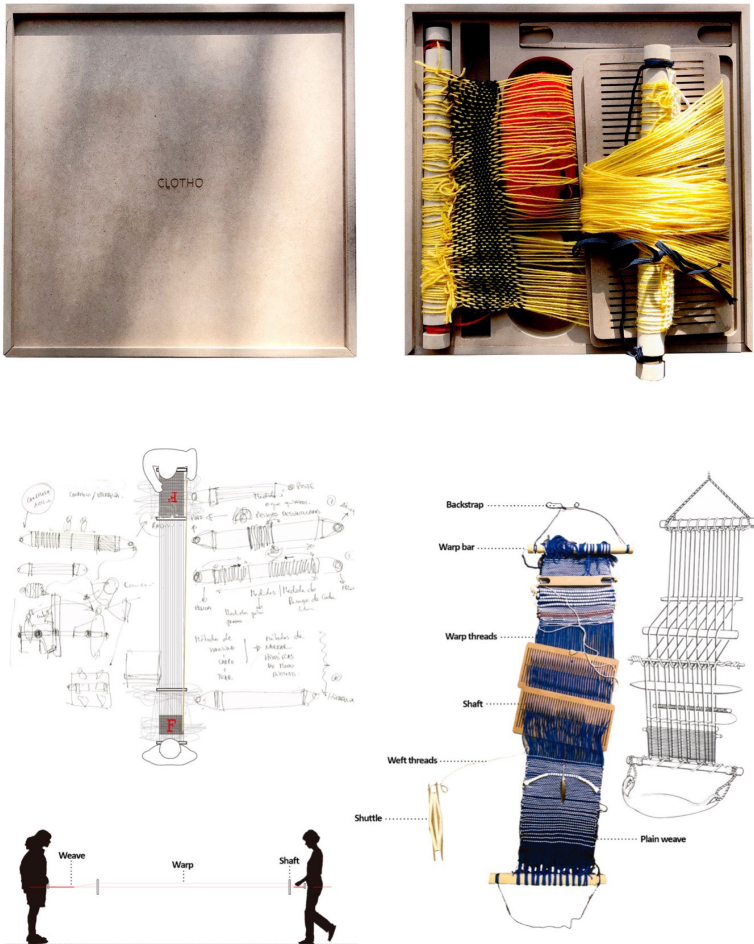
Fig. 5. Photo and drawings: Fernando P. Ferreira, 2020.

ferent spatial settings for various modes of public exchange, which may benefit architects and planners to enact creative ways of mediating and assessing local memories through making and storytelling.

All of the preparation and procedures for weaving need physical labour, devotion, patience, and time, in actions such as selecting the fibres, wraping, setting up the loom and weaving. Here, I use the term 'duration' to allude to the timeframe, seriality and repetitive aspects of the weaving ensembles over time and space. The time-consuming nature of these acts of weaving may appear to be a drawback, especially in comparison with the fast pace of contemporary work.[19] However, I want to suggest that the durational aspects of the weaving ensembles can facilitate environments of trust for participants to remember and reveal occluded memories, related to buildings with complicated historical backgrounds. For example, during the first weaving ensembles, when asking a former seamstress how Coelima's 1991 crisis had affected her, the answer was vague:

Fernando: How were you affected by the Coelima crisis in 1991?

RM: Hmmm. . . one strike or another. . . a few days of strikes, I guess. . . but the factory never stopped. . . [long pause] but I continued to earn my salary.

In those situations, hesitations, trembling, pauses or extended silences would come to the fore through the workers' voices, denouncing what the speaker could be occluding, as suggested by medical sociologist Anne Karpf, who states that:

[The voice] belongs to both the body and mind . . . it bridges our internal and external worlds, travelling from our most private recesses into the public domain, revealing not only our deepest sense of who we are, but also who we wish we weren't.[20]

If the voice is embodied in constructing the self's identity, as noted by Karpf, moments of silence while trying to remember can also be seen as a sign of repressed memories or self-censorship.[21]

Nonetheless, the duration of the weaving ensembles resulted in more time to learn from the silences, allowing workers to construct social bonds as a group. Indeed, duration and the repetitive rituals of weaving together granted opportunities for the workers to transform nonverbal pauses and omissions into active ways of verbal confession when remembering their labour life. For instance, when asking the same question related to Coelima's crisis to the same worker eight months later, a more unexpected answer was provided:

> RM: When Coelima ended up as a family company, a new administration was posted by the bank. That's when things got a little more complicated. I went two months without receiving a salary.

Although this is just a brief example of how the duration of the weaving process can become a space for revelation, one could argue that the ensemble's participants were more open and sensitive to disclosing buried layers within their memories while recognizing their political positionalities towards the factory.

Stories as a 'Pre-Condition' to Reimagine the Factory's Future

The emphasis of this essay has been on demonstrating the procedural benefits of weaving ensembles rather than their outcomes. Although the ensembles promoted actions of weaving freely without preconceived goals, it is essential to recall that different weaving techniques were explored while sharing collective and individual stories. For instance, at some point the ensemble's participants decided to select and write parts of their shared stories on paper and weave the written pieces of paper into the cloth. At the end, the outcome resulted in threads, paper and words entangled in six compelling, woven artefacts created by multiple hands.

Fig. 6. Pevidém, Portugal. Photo: Liliana Fontoura, 2020.

Furthermore, the ensembles also resulted in transcripts that reunited a polyphony of recorded oral memories of many workers and local agents who participated in the ensembles. The transcripts revealed anonymous information related to the history of Coelima over the last 30 years, uncovering which productive buildings had been sold to other textile enterprises through a process of alienation and denouncing how former community buildings of the factory had fallen into neglect, while pointing out the difficulties for architectural design in imagining and programming the future of these spaces:

> *RP: The factory is being sold and divided into distinct parts. Look, this area was for finishing and printing, and now we sold it. That was the training centre on the first floor, which has been closed for about three years. Ah, that was the supermarket built in the 1970s. It was the first supermarket in Portugal. Now it is empty. It is for sale. (active male chief of the textile department, 14 August 2021)*

> *J: What has happened here in Coelima has happened in many other industries in Ave that have gone to the dogs. Local authorities don't have the resources to redesign all of these abandoned spaces. And, also, to restore them and then not to know what to put there . . . (former foreman of weaving department, 21 August 2021)*

Additionally, the transcripts revealed how certain workers still face social inequalities within the factory's spatial dynamics, which are promoted by labour hierarchies and relations of power:

> *E: We used to enter the factory and then move. I mean, we practically couldn't move freely, because we couldn't leave our workstation a lot, except to go to the canteen or the bar in our half hour off. If people we knew saw us in other departments, they could correct us. We couldn't do that. (active female seamstress, 21 August 2020)*

M: In the weaving department, there were the supervisors' offices that were next to the looms, and they had windows where they could see everything outside. We didn't have time to stop. We were always working. But behind us, watching, there was always someone, always. (active female weaver, 11 September 2020)

It is certain that among the oral stories explained here superficially, memories are still lost or forgotten, which did not come up in the many ensembles enacted. Nevertheless, the woven artefacts and transcripts of stories helped to reorganize the complexity of Coelima's recent history while denouncing critical ethical issues in the workplace's dynamics that revealed the presence of surveillance and constraints of movement in the factory for certain positions in the labour hierarchy. Indeed, one may argue that the stories found through the performative features of the weaving ensembles highlight ambiguous and ethical dilemmas that were lived in the factory's life. These sorts of revelations are essential for architects and planners to deal with 'response-ability'[22] and for a critical perspective when reimagining scenarios for Coelima's future. Considering that, should these stories not be reconsidered by architects, planners and local agents as beginnings to reimagine the factory differently? Furthermore, should we not encourage more weaving ensembles as modes of storytelling in architectural fieldwork to expand agency?

To answer these questions, it is vital to recall that the weavings and transcripts produced should not be viewed as mnemonic or nostalgic fieldwork practices, in line with modernist conceptions of understanding memory as object-based processes. By doing so, the results could easily be forgotten.[23] Instead, I want to suggest that these outcomes can only become useful if they become a strategy of 'persuasive storytelling' for planners and architects.[24] One where found memories and story-based desires are studied and overlap, 'not [as] a passive depository of facts, but [as] an active process of creation of meanings', to imagine and to rethink Coelima's future.[25] If one

follows that vision, perhaps finding stories through weaving ensembles can create an innovative 'prescription'[26] for architectural design: a story-based beginning that aspires to catalyse more and new stories in the architectural imagination.[27]

Fig. 7 and 8. Guimarães, Portugal. Photo: Lais Pereira, 2020.

1   There is a substantial bibliography of oral history in architectural research. For example, see Naomi Stead, Janina Gosseye and Deborah van der Plaat (eds.), *Speaking of Buildings: Oral History in Architectural Research* (New York: Princeton Architectural Press, 2019); Jesse Adams Stein, 'The Co-construction of Spatial Memory', *Fabrications* 24/2 (2014), 178-197; Janina Gosseye, 'Editorial', *Fabrications* 24/2 (2014), 147-155.

2   Earlier attempts to combine oral history with architecture often focused on interviews. Philipe Boudon, for instance, released *Lived-In Architecture* (Cambridge, MA: MIT Press, 1969), a study of Le Corbusier's first housing project in the French commune of Pessac, based in part on post-occupancy interviews with tenants. Likewise, John Peter released *The Oral History of Modern Architecture* (New York: Harry N. Abrams, 1994), a collection of interviews with some of the most prominent modernist architects.

3   I follow architect Suzanne Erwing's vision of fieldwork as a tacit practice that works with the immaterial, the 'unfinished, the decayed, the abstract conditions of site', or, as I intend to focus on here, the place's stories. See Suzanne Erwing, 'Introduction', in: Suzanne Erwing at al. (eds.), *Architecture and Field/Work* (London: Routledge, 2010), 4.

4   Lynn Abrams, *Oral History Theory* (London: Routledge, 2016), 10.

5   For a complete understanding of how the Vale do Ave region has been socially affected by processes of deindustrialization, read José Virgílio Borges Pereira, *Ao Cair do Pano: Sobre a Formação do Quotidiano num Contexto (Des)Industrializado do Vale do Ave* [At the Fall of the Cloth: On the Formation of Daily Life in a(De) Industrialized Context of Vale do Ave] (Porto: Edições Afrontamento, 2012).

6   Esser Jorge Silva, *Fabricados na Fábrica: Uma Narrativa Operária do Séc. XXI* [Produced in the Factory: A Proletariat of the XXI Century] (Vila Nova de Famalicão: Edições Humus, 2012).

7   It is essential to recall the existence of the factory's monthly newspaper *O Miral/ Boletim Coelima*, which published institutional stories from 1963 to 1989. The factory's editorial staff produced the newspaper from top to bottom, and it promoted moralist and propagandist writings that discussed labour and cultural issues.

8   In his book *How Societies Remember* (Cambridge: Cambridge University Press, 1989), anthropologist Paul Connerton differentiated object-based memorials (inscribing practices) from physical acts of repetition (incorporating practices) as distinct practices of memory preservation. He argued that incorporating practices successfully extended memory because they may become part of the human's

consciousness. Architect Adrian Forty extended this study of memory in his book *The Art of Forgetting (Materializing Culture)* (Oxford: Berg Publishers, 1999), pushing these notions to the field of architecture, and arguing that modern architecture has been reproducing a model of crystallizing memory in buildings.

9   For example, philosopher Sadie Plant argues that 'the textures of woven cloth functioned as means of communication and information storage long before anything was written down'. See: Sadie Plant, *Zeros and Ones: Digital Women and the New Technoculture* (London: Fourth Estate, 1998), 65.

10   Kathryn Sullivan Kruger, *Weaving the Word: The Metaphorics of Weaving and Female Textual Production* (Selinsgrove, PA: Susquehanna University Press, 2002), 33.

11   Richard Sennett, *Together: the Rituals, Pleasures, and Politics of Cooperation* (New Haven: Yale University Press, 2012).

12   Michael Polanyi, *The Tacit Dimension* (Chicago: The University of Chicago Press, 2009).

13   Indra Kagis McEwen, *Socrates' Ancestor: An Essay on Architectural Beginnings* (Cambridge: MIT Press Ltd, 1993), 109.

14   Briony Fer recalls that 'Anni Albers described the college as a laboratory "where thought can be tested against action"'. See: Briony Fer, 'Black Mountain College Exercises', in: Ann Coxon, Briony Fer and Maria Muller-Schareck (eds.), *Anni Albers* (New Haven: Yale University Press, 2018), 65.

15   'The term backstrap loom . . . refers to any loom on which the warp is stretched between some stationary object and the body of the weaver'. See: Eric Broudy, *The Book of Looms: A History of the Handloom from Ancient Times to the Present* (Hanover: University Press of New England, 1993), 232-233.

16   The double backstrap loom is composed of two weaving shafts, two warp bars and two shuttles. To be set up to weave, it always needs two human bodies to put the warp threads under tension.

17   Polyphony is a musical concept that Mikhail Bakhtin used to describe Dostoevsky's work as containing several voices that are not subordinate to the author's voice. Bakhtin argues that each voice has its own perspective. See Mikhail Bakhtin, *Problems of Dostoevsky's Poetics* (Minneapolis: University of Minnesota Press, 1984).

18   Mikhail Bakhtin, *The Dialogic Imagination: Four Essays* (Austin: University of Texas Press, 1983).

19   Tim Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (London: Routledge, 2000), 323-338.

20 Anne Karpf, *The Human Voice: The Story of a Remarkable Talent* (London: Bloomsbury, 2007), 4.

21 Historian Luisa Passerini noted, for example, that Italian workers did not talk much about the Fascist era. Passerini argued that the silences are as essential to study as the individual voices in oral history research. See: Luisa Passerini, 'Work, Ideology and Consensus under Italian Fascism', *History Workshop Journal,* 8 (1979), 91.

22 Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (North Carolina: Duke University Press, 2016).

23 Forty, op. cit. (note 8).

24 James A. Throgmorton, *Planning as Persuasive Storytelling: The Rhetorical Construction of Chicago's Electric Future* (Chicago: The University of Chicago Press, 1996).

25 Alessandro Portelli, 'What Makes Oral History Different', in: Alistair Thomson and Robert Perks (eds.), *The Oral History Reader* (London: Routledge, 2003), 69.

26 Klaske Havik, *Urban Literacy. Reading and Writing Architecture* (Rotterdam: nai010 publishers, 2014).

27 Urban historian Dolores Hayden has suggested that a place's memories should be explored as a 'strategy to foster urban public history', arguing that 'memories of places would probably trigger more stories'. See: Dolores Hayden, *Power of Place* (Cambridge, MA: MIT Press, 2020), 47.