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Reclaiming Women's Narratives through an Eco-Feminist Weaving Practice

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Abstract

The study of history has long been dominated by the narratives of men, leaving the stories of women often untold or overshadowed. This is especially true for pre-literal times, where archaeological evidence can be scarce, and interpretation is often biased. However, through the lens of an eco-feminist contemporary weaving practice, it is possible to reclaim and embody the stories of women from ancient times. This thesis seeks to explore how eco-feminist weaving practices, can be used to amplify the voices of these women. Within this thesis I aim to give space to storytelling methodologies that are not part of written history, yet were woven, dyed, or spoken. By examining the cultural and environmental contexts in which women lived and by creating woven works that reflect on these narratives, this thesis aims to bring attention to the important roles that women played in their communities and their impact on shaping the world around them. It is not my intention to romanticise ways of past living, but merely to be critical at what we choose to preserve and let decay. The practice of weaving becomes a tool for reconnecting to knowledge prior to 'history'. To research this era, is to explore records beyond written text. From this voyage I hope to return with lessons to share and envision of how we might re-world our world (Haraway, 2019).

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Introduction

This thesis is written from an urge to ground myself, seeking roots of personal belonging, learning about women's history and the strength of being a woman. My grandmother, Marta, always admired strong women. She had gone through a turbulent childhood herself which had made her very independent at a young age. Even now, eight years after her passing, I still miss her every day. She was a painter and she painted until her last day. Her lines were always determined, strong and confident. She would teach me to be more confident in my lines too. While growing up, I always felt I was not strong enough, nor independent enough, as she was, and as she had had to be, when at my age.

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I always wondered to myself what it meant exactly to be a strong woman and I believe that this thesis came forth from the personal underlying urge to research interpretations of strength and intelligence in human history, and the thereby much devalued and overlooked female history. I do believe that Marta's tenacity and strong-willed mind inspired me on that journey. In addition to that research, I discovered that history is primarily shaped by subjective interpretations of social constructs. Furthermore, may rely heavily on the projection of gendered binaries (which may no longer be an appropriate framework to adhere to).

As a weaver myself, this research has deepened my understanding of the historical significance of textiles and has inspired me to incorporate more diverse and meaningful narratives into my own artistic practice.

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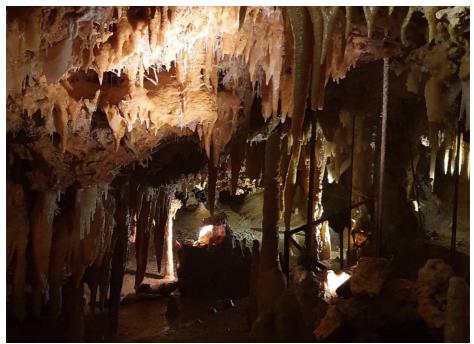
Weaving becomes a tool for reconnecting to knowledge prior to literature. So, what is it about non-written matter as a language that weave experience into matter, that has allowed for an understanding of human evolution? Do textiles therefore story history differently? This thesis delves into these questions and furthermore becomes entangled into matters such as how the loss of weaving connects to the loss of ecological knowledge and feminine values. And how reviving weaving can restore care to our environment.

Notes on Terminology

The English words 'text' and 'textile', both originate from the Latin word tessere, which means to weave. The important connection when studying the history of textile is the link between these two. It shows one how weaving has merged with other meanings and metaphors. The fact that the word has become so deeply entrenched in diverse contexts underscores its significance in early civilizations and the journey of humans. Written texts show us the importance of textile as a "container" (following Le Guin), a carrier for objects but also abstract ideas. However, the methodology of studying only written-based history must take into account that most texts have been written from a male perspective. As history is largely recorded by those who write, and those that do no write are therefore not remembered.

For the purpose of this thesis the terms, '(Upper) Palaeolithic', 'Old Stone age', 'Neolithic', 'New Stone Age' all refer to a period of human history between the first known use of stone tools by hominins to the invention of written systems and dates roughly from 2.5 million years ago to 1.200 B. C. (Barber, 1994). Known as 'pre-literal history', and as 'pre-history'. However, throughout this thesis I will not use the term 'pre-history' because I find it slightly problematic as it insinuates that this period isn't part of 'history'. I also occasionally use the term 'ancient' to refer to a non-specific area of time within the pre-literal history.

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3A, B, C. Stalactites in the Cougnac cave, Dordogne region, France, 2022. - 4A. Cave painting in Cougnac cave, Dordogne region, France.

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Unravelling the Erasure of Women's Voices in Pre-literal History

Where it all Began for Me: Visiting Cougnac and Lascaux

Last summer I was invited to join my partner's family on a visit to the many caves and cave paintings in the Dordogne region in France. I was struck by awe whilst visiting the cave Cougnac. I felt a deep spiritual sense of belonging, peace, and calmness amid the dripping stalactites deep inside the womb of the rock. Drawing inwards, I felt an immense intimacy. I felt alone yet connected to past time. As I made my way through the cave, I became aware of the passing centuries by reading the stalactites, which grew about one centimetre every thousand years. The darkened cave, the sound echoing off its walls, and the earthy smell of its ancient mineral formations all made me feel deeply connected to the distant past. We walked past stalactites for a while before we encountered the drawings. The tour guide explained that the cave is believed to have been a sacred space where humans in the distant past entered to draw spirit animals whilst performing shamanistic rituals in between the drips of stalactites.

Cougnac is one of the lesser-known caves of the region. The most notable is the Grotte de Lascaux, near the village of Montignac. Grotte de Lascaux consists of a great network of caves with over six hundred paintings covering the walls and ceilings inside. The drawings are estimated to be 17.000 years old correlating with the era named the 'Paleolithic'. The discovery of the cave paintings was relatively recent and as the story goes were found by a teenager in 1940 while walking the dog. The French government decided to open the caves to the public in 1948. However, after some years, due to the amount

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of human activity inside the cave, the climate inside changed because of the amount of CO2 being released from our breathing. As a result, the drawings on the wall started to decay, resulting in the appearance and spread of black and white fungal spots. To protect the paintings, the government decided to close the entrance. The entrance became extremely limited, and a replica of Lascaux (Lascaux II) was built two hundred metres further up for visitors to admire the paintings.

While the fact that a replica of the sanctuary was made is an interesting topic in itself, it will not be the focus of this thesis. Instead, I am more fascinated by the historical voices of females hidden in those caves. Research conducted into the caves in the Dordogne region has been debatable since (at least) the nineties, as for a long time researchers presumed that the earliest artists were all male. However, newer research shows that at least 40% of the artists could have been female because most often the hand 17 stencils, also referred to as "signatures", next to the paintings indicate female hands (Snow, 2013). Feminist scholar Margaret Conkey has argued that the presence of possible female handprints in many of the cave paintings challenges the idea that pre-literary societies were entirely male dominated (Conkey and Gero, 1991; Conkey et al., 2015, p.7). For the past decades, Conkey, among other scholars, such as Kathleen Steerling, Pamela Geller and Marylène Patou-Mathis, have therefore argued that the simple, yet dominant, view of male hunters and female gatherers is an oversimplification.

Their research into pre-literal societies shows that the division of tasks was not necessarily as gendered as previously thought and that the domination of men's greatness and intelligence has most likely been pushed by the sixteenth till eighteenth century male scientists, when most research to this period of cultural

history was written down (Patou-Mathis, 2020). The idea that women's main duties were only domestic, can therefore be biased and linked to the subjectivity of male archaeologists.

At first these paintings were treated as an interpretation of the world outside and the depictions were thought to be drawings of animals men hunted and ate. After the dedicated research of a professor named André Leroi-Gourhan in the 1960s, specifically on the cave of Lascaux, was it concluded that the caves were used for ritual purposes, thus were sanctuaries, places of shamanistic rituals . Leroi-Gourhan developed a method of classifying the images based on the duality of feminine and masculine . This is telling, because contemporary research has shown that in preliterary societies gender roles were more fluid. Thus, his research also unveils the binary thinking pattern of modern Western societies.

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Feminist research has prompted scholars to re-examine preliterary history from a non-gendered perspective and recognise the contributions of women in early human societies. Very little of literary records are devoted to women and in many accounts the primary focus has been on the intelligence and inventions of man. Feminist critics have discussed how androcentrism, a male centred worldview (Hibss, 2014), has influenced scientific research and researchers such as Pamela Geller and Kathleen Steerling have discussed the impact of this on the study of pre-literary. The presumed universal and rigid sexual division of labour created difficulties for male researchers in explaining why female burials included hunting tools or bared injuries associated with hunting. Hunting would have likely required as many able-bodied adults as possible. (Geller and Steerling, 2020, para. 8). The French historian Marylène Patou-Mathis sums it up spirited in an interview led by

French journalist Clara Hage in 2020 for Neon Literary Magazine:

As if human evolution had taken place without women. Their place during Prehistory is certainly not entirely denied: they are allowed a biological participation in evolution because they are the ones who give birth to children. But culturally, the idea that man is the author of all main inventions, like tools and fire, is predominant.

So, where did this partial history come from? Just as important, but more to the purpose of this thesis, and less exposed, is that these cave ancestors invented string and sewing of which the earliest preserved string was also found in the caves of Lascaux in France, dating back to 15.000 B.C. Thus, do the caves of Lascaux also mark the beginning 19 of humanity's long association with fibre (Barber, 1994). A detailed study of fibre would therefore inform us and contribute to the role of technology in the development of human culture and society (Janik and Bates, 2015). In museums, many objects that are conserved of the pre-literary era are weapons, tools or knives carved from wood or stone. Furthermore, the systematic archaeology (that emerged in the nineteenth century) divides the timeline based on the dominant material for tools: stone only, bronze, and iron (Barber, 1994, p.25). It is undeniable that many textiles did not survive due to the perishable character of the material, but in the same way, so do the stories, hence experiences, of the women that spun, dyed, and wove the cloths. I cannot help but think of the decay of textiles as a metaphor for a lack of care towards the perspective of women, or even as the erasure of those perspectives from history. Those stories are then, all at once, forgotten.

In the essay *A Carrier Bag of Fiction* (1986) by Ursula K. Le Guin, Le Guin introduces the research of the anthropologist Elizabeth Fisher who states that the first cultural device was probably a recipient (Fisher, 1980). A carrier bag, a container, a basket, to hold foraged products. Most likely these containers were made of some type of fibrous matter. Le Guin articulates the effects on her of such partiality of human history in her text. She writes:

This theory not only explains large areas of theoretical obscurity and avoids large areas of theoretical nonsense; it also grounds me, personally, in human culture in a way I never felt grounded before. So long as culture was explained as originating from and elaborating upon the use of long hard objects for sticking bashing and killing, I never thought that I had, or wanted, any particular share in it.

Thus, she emphasises Donna Haraway's insight of "it matters which stories we tell other stories with; it matters what concepts we think to think other concepts with" (Haraway, 2016, p.6). She brings forth the urgent craft of storytelling. This specific knowledge includes so-called human greatness and intelligence of inventions that not necessarily are directly linked to killing, fighting, or concurring but may elicit the importance of carrying knowledge. Le Guin moves away from the notion of the heroic and suggests to focus on the perhaps more abandoned knowledges. To bring forth an urge for change to the ideas we have inherited through the paintings on the walls of ancient caves, stories, to our urbanised lives. By making a shift in our mindset from the idea of tools and weapons to that of a carrier bag, we can eventually transform the collective perspective from

destruction and heroism to a more collaborative practice of gathering.

Lost Narratives

Unfortunately, as discussed previously, it's no longer possible to know most of pre-literary women's lives because too much has been lost with time. Very little of literary records are devoted to women and herstories mostly got passed on through vocal storytelling (Barber, 1994). Therefore, it can be difficult to piece together the stories of women in general. According to Elisabeth Wayland Barber, author of the handbook Prehistoric Textiles (Princeton Press, 1991), many artifacts that relate to cloth had been ignored or even thrown out due to archaeologists' disinterest in textiles. Her main reason for conducting her research was rooted in the urge to fill the great gap at the beginning of standard handbooks of textile history. Since the infinitesimal fragments of textiles that have been researched, have led 21 torichevaluationofpastculturalknowledge,andprovidedvaluableinsight into the skill of our ancient ancestors and their relationship to the land.

On my first day during my stay in 2017 as an intern at the Textile Research Centre (TRC) in Leiden, Dr. Gillian Vogelsang-Eastwood, a textile archaeologist who is also the founderdirector of the TRC foundation, let me assist her in the analysation of a 7500-year-old textile fragment from ÇatalHöyük in Turkey, which is a mong the oldest surviving textiles in the world (Vogelsang-Eastwood, 2023). Textiles from ÇatalHöyük are among the bestpreserved plant artifacts from ancient times because they were charred by the indirect heat from fire, which occurred when houses were deliberately burnt in an ancient closing ritual (Loudon, et al., 2023).

Researchers had determined that the fibres used were most likely all flax, based on properties such as their straightness and the angular

structure of the cells, a finding that was at that time confirmed by Vogelsang-Eastwood (Louden et al., para. 7, 2023). However, research is still being undertaken and current research has suggested that the source from many fragments from ÇatalHöyük, are in fact bast fibres such as willow, elm, and poplar. This suggests that the textile makers had an advanced understanding of the local wild trees, including how they grew, their physical characteristics and how they varied throughout the seasons (Loudon, et al., 2023). Through such reading of the fibre, it becomes evident that pre-literal societies were living close to the lives of other beings, much like many forager societies today.

In the book *Women's Work, the first 20,000 years* (Norton, 1994), also by Elisabeth Wayland Barber. Barber embarks on a journey with the help of her sister to reweave one of the surviving ancient cloths woven by ancestors of the Celts from between 1200-600 B. C. that was found in in the Hallstatt salt mine. The piece was covered with salt, which is why the fabric was preserved very well. She argues that not many archaeologists that have written about pre-literal pottery or architecture have needed to take such steps, as scholars felt flooded with information already. However, for pre-literal textiles one must use "every discoverable clue" (Barber, 1194, p.24). During the process of reweaving the cloth, she for example notices how the colour pattern was based on eyeing rather than counting the threads. The author shares that by physically engaging in the process of weaving, she gains a deeper understanding of the weaving technique used during the Stone Age, that she wouldn't have achieved through mere theorising.

Such practical experiments might be one of the rare ways to get closer to the spirits of pre-literary women as textiles were still understood as one of women's primary concerns in those times, among cooking and making recipes (Barber, 1994). However,

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a lack of clear sources has still led to a great deal of guesswork. It can be difficult to piece together the stories of these women, but through re-visiting weaving and dyeing techniques we can begin to reimagine and embody lost female narratives.



1A. The 7500-year-old fabric fragments in its protective box. – 1B. A microscopic view of one of the 7500-year-old textile fragments under a gadget microscope, which survived due to it being indirectly carbonised (most likely) during a fire – 1C. Studying a strand from the fragment in a petri dish under the microscope. – 2A. A copy made by researchers and craft enthousiasts of the textile piece found in the Hallstat mine in Austria. Copper originating from bronze mining tools had most likely altered the colour of the textile. Among some of the plants used for the copy was woad, European indigo.(https://www.sciencedirect.com/science/article/abs/pii/S2352409X15000401)

Contemporary Weaving Practices as an Archaeology for the Future

Resistance and Connection

Weaving has long been continued by women throughout history until the age of industrialisation. Those women worked ceaselessly, spinning, weaving, and sewing, often together. In Europe as a result of the Industrial Revolution, which began in the eighteenth century, many societies no longer know about textile in detail. How it is constructed, or the resources and processes needed to produce it has been lost. Furthermore, due to Western colonialism and imperialism, has this not only resulted in the loss of such knowledge in Europe, but has it also damaged and forced it into extinction in all 24 parts of the world where colonial settlement took place. From the onset of colonialism, numerous indigenous cultures have endured waves of destructive domination, yet their weaving tradition and knowledge, intimately tied to place-based ecological knowledge, have in many places endured. This wisdom is rooted in an understanding of local ecosystems, natural resources, and the intricate interplay between humanity and the natural environment, passed down over generations through direct observations of the natural world.

In the essay On Re-enchantment and Cosmic Hopes: The Power of Checkered Textile, Mooring Oleifera, and Collective Intentionality by curator Mira Asriningtyas, Asriningtyas explores magic as a tool to fight oppression and ward off harmful societal forces (Asriningtyas, 2022, para. 2). She mentions Poleng, a checkered cloth symbolising balance and harmony, which is used in Indonesia and wrapped around an objects or a person to indicate the presence of a deity or spirit inside

something that needs to be treated respectfully and with caution (used on statues, trees, stones, people etc.) (Asriningtyas, 2022, para. 3). In further explanation, she notes that the power lies not in the textile itself, but rather in the community's beliefs that are embedded within it. Thus, it can be inferred that textiles carry not only practical functions, but also spiritual values that move people to take action.

Asriningtyas explains that the tradition of wrapping poleng around sacred objects has inspired conservation groups in Indonesia, such as the Resan (which means protective tree) Gunungkidal community in Yogyakarta, to use similar practices as a means of fostering environmental activism (Asriningtyas, 2022). They use a combination of spiritual wisdom and ecological knowledge to restore and conserve land and water resources in the area. They identify and protect keystone tree species, clean up, restore water reservoirs and replant trees. Before conservation attempts, they often use rituals and 25 offerings to acknowledge the protecting spirit of the Resan (protective tree). The knowledge of these offerings is passed down through generations and entrusted to local shamans. Indigenous communities from around the world have long recognised the importance of the relationship between humans and the earth and have warned of ecological catastrophical results due to Western extractive practices. The late shaman, Sabino Gualinga, from Ecuador's Amazon Rainforest has advocated for recognising the forest and its contents as living, conscious entities with legal rights (Asriningtyas, 2022). Gentle practices and understanding of cohabitation with non-human entities are becoming increasingly important in the face of global climate emergency. How is the loss if ecological knowledge connected to the loss of of weaving and feminine values? And how can reviving weaving, among other textile techniques, evolve into local economies of care?

How is the loss of ecological knowledge connected to the

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loss of weaving and feminine values?

A Tool for Reconnecting with Ecological knowledge and Feminine Values

In his book *The Alphabet Versus the Goddess: The Conflict Between Word and Image* (Penguin Books, 1999), Leonard Shlain argues that the written language - in its linearity from left to right - at least in the Western world, conflicts with feminine values of lateral thinking, simultaneity, and immanence (Shlain, 1999). According to Shlain, the introduction of the alphabet caused a significant shift in the way our brains functioned compared to our pre-literal ancestors. He suggests that our ancestors relied heavily on images, which he describes is associated with the right hemisphere and the feminine. He claims that we have lost this ability due to the adoption of written language that resulted excessively relying on the left hemisphere which he describes connects to linear thinking, logic, and associates with the masculine. Shlain's argument raises the question of how we can restore the balance between linear and lateral thinking.

reasoning, I do find his theory about the impact of written language on lateral thinking intriguing. If written language has altered our thinking to be more linear, can we learn to think more latterly through the ancient practice of weaving? If so, we must retrace our roots, alongside learning from indigenous cultures to retrieve lost knowledge. During my Erasmus exchange abroad in Japan in 2018, I learned to weave on a floor loom from my non-English speaking Japanese teacher and found that the language of the hands is universal. Weaving, from then on, became a meditative practice for me, with the ritual of dressing the loom and the repetitive movements evolved in the process. The simple gesture of moving over

and under threads to weave a surface grounded me in its simplicity.

Although I do not fully support Shlain's binary thinking in his

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Threads move in opposite directions as they weave together, which create a great physical and spatial dimension. I therefore believe that the act of weaving offers a level of embodiment that surpasses the mere dimensions of an image (following Shlain's line of reasoning) and, in doing so, offers more relational complexity. Also, every part of thread passes through the hand of the weaver before one even has started the process of weaving (the process of warping). So, the weaver's hands are intimately involved from the beginning of the process and therefore create a deeper connection between the weaver and that 'being woven'. Besides the movement of the threads, weaving also offers an incredibly tactile and physical involvement of the body, and do many looms require the weaver's full body to be invested. Thus, the process of weaving offers a different way of participating in the world, that involves multiple directions of movements, simultaneously, that is a significant variation from the linear gesture of writing.

Furthermore, when I weave, I feel more connected to the biosphere, knowing that other creatures, from insects to organisms, also engage in similar actions of weaving. For instance, I can empathise more with a spider weaving its web as we weave and "become alongside" one another (Haraway, 2016). What is significant about that, is that weaving may stimulate curiousity about the direct surrounding, leading to a study of a species related to weaving. This, in turn, can encourage an understanding of ecological relations and a more holistic way of thinking, in which we perceive ourselves in relationship to the landscape. In that matter, weaving does not only offer a record of human culture, as discussed in the previous chapter, but it also provides a record of our relationship to the creatures around us. A tapestry becomes a map, in which varying plant species, animals, minerals and ourselves are literally woven into.

Weaving thus offers a counter device to written text as a recorder, providing alternative way of recording knowledge and cultural history through matter. By studying and practicing pre-literate ecofeminist weaving practices, individuals can begin to reconnect with (what Shlain names) feminine values of simultaneity, immanence.

The notion of care towards the environment is vital to the mission of reviving ancient weaving techniques and is, due to the Scientific Revolution in Europe, a lost (female) narrative. Nature was, prior to the revolution, heavily associated with femininity, as both were seen as producers of birth. Nature was seen as something sacred. Though the revolution created a shift in the idea of nature as an organism to nature as something dead and controllable (Merchant, 1980). This view led to the exploitation of both women and nature, with the natural world subjected to domination, objectification and control, and women's bodies and labour seen as objects to be controlled and 29 exploited. This is at the root of eco-feminist thinking. Historically it was seen as women's work always to take care. In the current age of climatical catastrophe, is it yet again the woman who is left to take care of an ecology, to nurture that what is left destroyed? Dr. Vandana Shiva, a physicist, ecologist, activist, anti-globalisation author and eco-feminst, highlights the historical role of women in nurturing and preserving biodiversity on the episode On the Emancipation of Seed, Water and Women on the podcast For The Wild (ep 26, 2015):

Women have always worked with biodiversity. Their ability to be compassionate, to be loving survived in women – I'm not saying it is built into the genes of women- but it survived in women because women were left to look after the economy which was not considered important. It was not the economy

of war, of profits and the market. It was the economy of care. That economy of care needs to be everyone's economy.

Shiva views heterogeneity as central to women's knowledge and way of working because women have been the primary participant in subsistence work. Historically, their domestic and reproductive labour required a variety of skills and the ability to multitask. For example, women would often weave or spin, cook, and take care of children simultaneously (see appendix for more information). However, Shiva believes that this perspective has been undervalued and ignored in dominant economic systems that prioritise profit and the market over caretaking. She advocates for a shift that recognises and values the importance of care work, regardless of the person's gender performing it.

Women have always worked with biodiversity. Their ability to be compassionate,

words by Dr. Vandana Shiva

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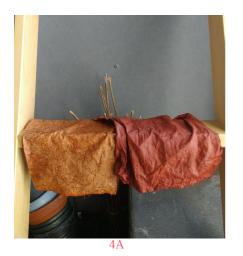
to be loving, survived in women, because women were left to look after the economy of care

The Response-ability of an Eco-feminist Weaving Practice

Exploring the Response-ability of Weaving

Donna Haraway coined the term "response-ability" as a means to emphasise the importance of taking responsibility for our actions and recognising the ways in which our actions are interconnected with the world around us (Haraway, 2016, p.8). Foraging for materials to use in my weaving practice has brought me great pleasure, but it has also weighed on my conscience as I strive to avoid disrupting the ecology of the landscapes I explore. Ecologies are complex systems that move in and out of balance depending on each other's actions. How do you play your part in an ecology responsibly? To address this burden, I applied to Ecology Futures to research alternative ways of using natural resources. While I experimented using digital technologies as an extension of my weaving practice, to minimise my impact, I realised that there is no "one-size-fits-all" solution to sustainability. In fact, digital technology may actually produce more energy waste than leaves gathered from a forest for a natural dye pot. I realized that my practice may not be entirely sustainable, but it does foster a deeper connection to my environment and helps me understand local ecologies. When I extract, I do so directly, with my hand reaching for a branch of a plant, I am therefore in control of the amount of extraction I do. For me, this is at the core of an eco-feminist weaving practice because it prioritises a hands-on approach that values the relationship between the weaver, the materials, and the environment.

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4A. The left sample is dyed with iron oxide rich soil, the right one from store bought Iron Oxide. -4B. One of the participants trying the cold dyeing method with store-bought Iron Oxide. -4C. Here I am preparing a dye bowl with the soil from Luxembourg. - These photos were taken by Mercedes Azpilicueta during the workshop I led for teachers at the TXT department of the Gerrit Rietveld Academy, 2023

Interaction with the Biosphere

Recently I gave a natural dyeing workshop, where I let the participants experiment with mud dyeing for which I used Luxembourgish clay rocks that I received from a close friend. We used a cold dyeing method-which uses less water and less energy than the hot dyeing method often used with plant dyeing. To bind the iron oxide to the fabrics we beforehand soaked them in homemade soy milk, which is a Japanese method to bind the pigment to the textile. Iron oxide naturally does not bind to textile, but the protein in soybeans chemically alters its composition in order to do so (I learned this during my exchange to Japan). The soil was a dark orange-red colour, due to the high amount of iron oxide in it. Iron oxide is a red earth pigment that has been used in the earliest cave paintings. Among red, exist also ochre, amber, brown and grey colours, derived from a yariety of soils. Using pigment extracted from the soil as a natural dye method, is a way to connect with the natural environment and assert our place within it. I use the iron oxide to transport myself back to the caves of Lascaux in an effort to connect, through my senses, to a pre-literal language of material. Mud dyeing is a practice that is still carried out in many parts of the world, for instance in Indonesia, Japan and Mali and belongs to one of the oldest technologies of dyeing.

By studying a natural dye, like mud dye, one can deepen one's understanding of the connection between human activities and ecological systems and gain a culturally sensitive practice. Understanding the needs of a species and its role in an ecosystem enables us to safeguard against overharvesting or disruption of the balance of an ecosystem (Kimmerer, 2013). Moreover, studying dyes can lead to a richer knowledge of colour and material identification. By learning where a dyer harvested a specimen, which route they

took to forage the dye and how many years it took to accumulate the amount, we can better appreciate the background landscape of a colour. Learning to extract dyes with care can also help us rekindle our curiousity towards other multi-species entanglements and the understanding of shimmering landscapes (Gan, et al., 2017).

Through my own practice, and through leading workshops, I hope to explore ways in which collective material research can contribute to re-connecting with past knowledge, thus build on a collective material memory.

For me, weaving connects me to the lost female voices of the past, and dyeing to the lost knowledge of the landscape which industrial textile production demolished. By reclaiming these practices as a meaningful and important activity, I am engaged in a process that honours the interconnection between myself and the environment. I see reclaiming care towards the environment 35 an eco-feminist mannerism, and as an act of rebellion against patriarchy, and a step into the direction of an economy of care, a matriarchy. A system not necessarily dominated by a specific sex, but a system which honours the traits of care, non-linearity, and holistic view which were traditionally associated with women.

Conclusion

The intention of this thesis was to explore the power of eco-feminist weaving practices by returning deep into the caves of the Palaeolithic era to reclaim pre-literary women's narratives. In this context, the term "archaeology" refers to the act of exploring and re-discovering traditional practices of weaving, in order to learn from them and apply them to present-day themes of women's work, care and multispecies entanglements. The idea of weaving is often used as a metaphor

for bringing together different elements and creating a cohesive whole, which can be seen as a necessary step in creating a hopeful future. By learning about natural fibres and dyes, for weaving, one can reconnect with the environment and the ecological knowledge that has been lost. Contemporary weaving thus becomes not only a creative process, but also a political one that challenges systems that have erased not only women's voices, but also the indigenous and native voices of ecological and cultural knowledge. And in addition to the history of women, this thesis should inspire further inquiry into the history of other dismissed groups that were also never recorded. Thus, one cannot only strive to acknowledge the loss of female voices in history, but also those of other marginalised groups such as nonbinary and transgender voices and of those non-human histories, such as animals and plants and other animacies. This thesis argues that "true voyage is return" (Le Guin, 1974) and that by returning to ancient textile technology, we can honour our ancestral knowledge. Reclaiming and studying the past is also about the future. My approach views textile practices as a form of archaeology for the future, that can inform and inspire. To return to long lost weaving technology and dyeing methods, can be a way to explore the potential for a way forward. One that contributes to the practice of an economy of care.

Appendix

Introduction

'To story history' is a phrase used by Victoria Mckenzie, my thesis supervisor, who uses 'story' as a verb alongside 'history' which evokes thoughts of re-telling his story from a female perspective.

Notes on Terminology

In addition to written texts, illustrations, such as the depictions of women weaving found on ancient Greek pottery, were most likely also the creation of male artists (Heath, 2011, p.70). Many sources that were created for the purpose of production or trade often reflect a male-dominated view of the world (Baber, 1992).

Hominin is an umbrella term for all species regarded as human, directly ancestral to humans, or very closely related to humans (Oxford Advanced Learner's Dictionaries, 2023).

Having said this, the meaning and features of a written system can be up for debate. Paintings can also be viewed as a system of writing, much like textile techniques, such as quipu, which is made by knotting string and was used by the Inca people to collect data and keep records and is still used across South-America (World History Encyclopedia, 2014).

I Unravelling the Erasure of Women's Voices in Pre-literal History

I gathered this information during multiple cave tours in Dordogne visiting the Grotte de Lascaux, Cougnac and Grotte du Sorcier among others.

The Paleolithic era is also called the 'Old Stone Age', based on the stone tools discovered that were all mostly chipped. This era is made distinct from the subsequent 'Neolithic' era, or 'New Stone Age' in which the stone tools were often ground down to a smooth finish (Barber, 1994, p.24).

The research by Dean Snow was based on hand stencils from French and Spanish cave sites. His findings suggest that separate analyses are required for different populations. Therefore, his analysis is mainly applicable to European cave paintings.

Leroi-Gourhan was frequently cited in the two-volume collaboration by French philosopher Gilles Deleuze and psychiatrist Félix Guattari entitled Capitalism and Schizophrenia. Leroi-Gourhan played an important role in the development of key concepts of Deleuze and Guattari's becoming and deterritorialization.

The origin and purpose of the cave art remains a much-debated topic in contemporary research. While some scholars, such as Biologist R. Dale Guthrie, maintain that the art served a purely functional purpose related to hunting, the 'shaman theory' continues to be most discussed in academic circles. The archaeologist Dave Whitley, for instance, posits that the darkness of the caves could induce sensory deprivation, leading to an altered state of consciousness conductive to shamanic ritual

(Hughes, 2013).

The Bradshaw foundation hold an online archive of the expeditions into Lascaux, among an archive of worldwide Rock Art. https://www.bradshawfoundation.com/lascaux/index.php

However, due to his publication being written in French, without a translation, it is still unknown to me whether he also assumed that the artists were male or not, but, according to his time, most probably he did think of them as male artists.

Marylène Patou-Mathis also wrote the book L'homme Prehistorique est Aussi une Femme, 2020, translation: The Prehistoric Man was Also a Woman.

The use of weaving was established by analysing the clothing depicted on clay 'Venus' figures and clay fragments with imprints of textiles in the Upper Paleolithic Eurasia (Late Stone Age).

Similarly to other women's overlooked products such as meal creation and the recipes for preparing them (Barber, 1994, p.24).

Unfortunately, the TRC suffers from huge underfunding due to the fact that textiles are not taken seriously enough as a cultural heritage, according to Vogelsang-Eastwood (2018). In one of the conversations we had she mentioned that a constant flow of textile donations that are being made to the TRC is due to many museums not being interested in this part of human history and therefore often reject textile related items.

Hallstatt is the oldest salt mine in the world, located in Austria.

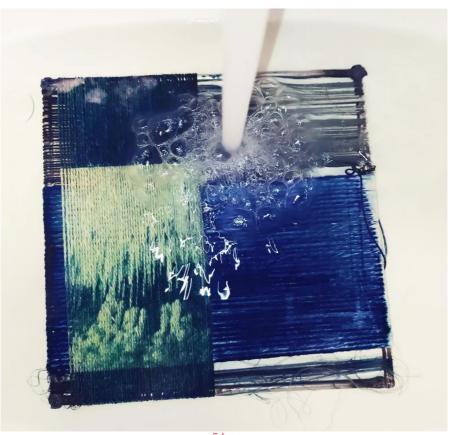
It is important to note that this division of labor was not absolute, and there was likely some overlap between the tasks performed by men and women. Particularly in later centuries, much of the textile trade, which developed during the Iron Age was performed by men. Women are most known to have woven needs for their own households throughout many societies, but they also produced for trade when they could (Barber, 1992).

II Contemporary Weaving Practices as an Archaeology for the Future

The reason most women worked with fibres, was mainly due to the compatibility with this pursuit with the demands of childcare (Brown, 1970). Thus, the jobs assigned to women had the following characteristics: The participant is not obliged to be far from home; the tasks are relatively monotonous and do not require rapt concentration; the work is not dangerous and can be performed despite interruptions (Brown, 1970). So does the practice of spinning, weaving, and sewing easily fit these characteristics. Furthermore, women not always wove only for domestic uses. As early as the Iron Age where women the main force behind the textile industry, whilst weaving from home (a "domestic system") (Barber, 1992, p.284). Thus, did women not only dominate the textile industry, but did the textile industry dominate women too.

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Material Process pictures



5A

5A. A cyanotype print of cave stalactites on threads that are bound both vertically and horizontally around a metal frame. The photo is taken amidst the process of washing the excess dye out.





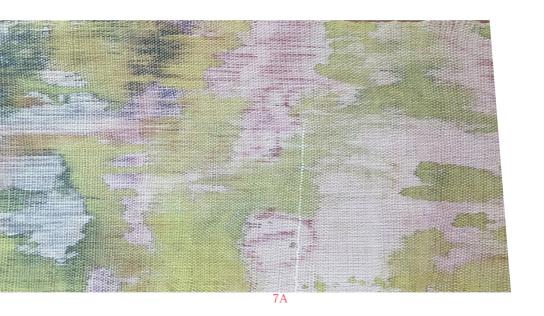


 $6A.\ Engraved\ vulva$ figures, Dordgone region in France, 2022. - $6B.\ Cyanotype$ of vulva figures on handwoven fabric.





SILENT THREADS



7B 45



7A. A handwoven cotton fabric prepared for cyanotype printing, with a coating of a photosensitive solution applied. The fabric is in the process of drying . - 7B. The same fabric, now dry and ready for the next step. It will be exposed to sunlight to create cyanotype prints of cave pictures on its surface.

8A. Dressing the loom with the help of my mother and sister. It was too big to be able to handle alone. - 8B. The process of threading the loom, a thread passes through a headle, one at a time. - 8C, D. Amidst weaving, and my hands actively engaged in the weaving process. Furthermore these photo's show how close I am to the fabric while weaving.

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