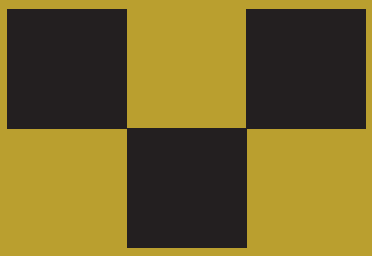
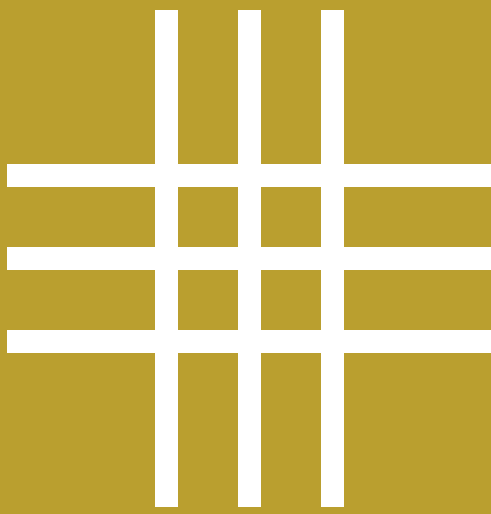
A MASTERS THESIS

On the Matter of Emplacement

Textiles, Binaries, and the Ideal





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UNIVERSITY OF GEORGIA
2025

ON THE MATTER OF EMPLACEMENT: TEXTILES, BINARIES, AND THE IDEAL

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BFA FIBERS, SAVANNAH COLLEGE OF ART AND DESIGN, 2017

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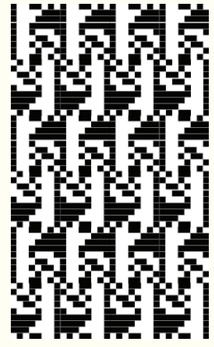
ACKNOWLEDGEMENTS

THIS THREE-YEAR PERIOD HAS BEEN ONE OF THE MOST FORMATIVE TIMES IN MY LIFE AND I AM SO GRATEFUL TO EVERYONE WHO INFLUENCED AND ENCOURAGED ME ALONG THE WAY.

THANK YOU TO MY COMMITTEE FOR ALL THE WAYS YOU SUPPORTED ME:
JON SWINDLER, FOR GIVING ME PERMISSION TO PLAY BY MY OWN RULES
ERIN MOORE, FOR WEAVING WEBS AND SPINNING WORDS WITH ME
LINDSEY REYNOLDS, FOR SHOWING ME THE BOUNDLESS EXPANSES OF RESEARCH
EILEEN WALLACE, FOR BEING A MODEL OF EFFICACIOUS SYSTEMS IN ACTION
JON VOGT, FOR HELPING ME SEE THERE'S ALWAYS MORE THAN ONE SIDE OF THINGS

THANK YOU TO MY PARTNER JACK - YOU'VE REALLY SEEN IT ALL. EVERY WIN, FRUSTRATION, DOWN-TO-THE-WIRE MOMENT, BREAKTHROUGH. YOU OFFER UNWAVERING SUPPORT IN EVERYTHING I DO, ALWAYS HOLD IT DOWN, AND NEVER LET ME MISS A MEAL.

I FINISH MY TIME HERE A BETTER PERSON AND BETTER ARTIST. IF I COULD GO BACK AND DO IT AGAIN, I WOULDN'T CHANGE A SINGLE THING.



BACK COVER IMAGE:
EXPANSIVE, DIGITAL SKETCH

Introduction

Greetings from the Loom

FIGURE Nº 1
THE WEAVING ROOM AT AZ-WEST, JOSHUA TREE/CA

I am seated at the loom, a cloth developing before me. A faint metallic symphony flits through the air as the harnesses raise, hundreds of flat steel needles shifting with the motion. My arms move rhythmically, outstretched, as I pass the shuttle through a parted sea of thread from one edge of cloth to the other.

Every now and again I remember to rise and stretch my muscles.

Since the first time I sat down at a loom, I felt an innate sense of communion with the craft and the women who took part in it before me. This tradition is a performance, one born of the need for protection and later the desire for ornamentation. It has been conducted, innovated, and enjoyed by so many before me.

On some level, I am always aware of this fact as I work at the loom, whether consciously in my mind or inherently in my body. I wonder how many women have felt the soreness of their arms, the stiffness of their backs. How many times they've received an absentminded bruising from bumping the loom's stately frame with their hip. Did they cherish their labor as I do?

A Brief History of Textiles

Women's Work, Textiles as Communicators, and Contemporary Influences

While textile work is undoubtedly a labor of care and dedication, it's unlikely that all women who wove took such enjoyment in their work. In contemporary times, weaving by hand is an undertaking done primarily by choice for the purpose of art-making, preserving cultural heritage, and maintaining skill. Though early textile work did engage with these intentions, it was primarily a necessary chore done for the purpose of clothing the members of one's household or bolstering the family's economic status through cottage industry.

For many reasons, textile work was compatible with the lifestyle of historic and prehistoric women. Historian Judith Brown in her 1970 paper "Notes on the Division of Labor by Sex" observes that the work undertaken by women is contingent upon it's accordance with child rearing: "They do not require rapt concentration and are relatively dull and repetitive; they are easily interruptible and easily resumed once interrupted; they do not place the child in potential danger; and they do not require the participant to range very far from home."[1] Scholar Elizabeth Weiland Barber extrapolates on this idea in her book "Women's Work: The First 20,000 Years; Women, Cloth, and Society in Early Times," noting that the crafts of sewing, spinning, and weaving were ideal activities within the context of Brown's list.[2]

Because the act of child-rearing was communal, so too was textile labor. Neighboring women would gather to process, spin, dye, and weave material, especially as several of these activities required one or more people to complete. Some created their own rituals or events based around textile activities, such as the Scottish tradition of wool waulking. On this occasion, a piece of woven wool cloth would be wetted, taken up, and agitated by many women around a table. The women would sing accompanying Gaelic songs to pass the time and set the pace for this felling, or softening, process. Even today, some quilters work in groups or participate in quilting bees, in which multiple quilters come together to pool resources, share skills, and work on each other's pieces.

FIGURE Nº 2
TERRACOTTA LEYKTHOS (THE METROPOLITAN MUSEUM OF ART)

"It can be argued that as indicators of cultural mechanisms, textiles offer insights into the greatest range of developments, embracing not only technology, agriculture and trade, but also ritual, tribute, language, art and personal identity."[3]

Up until the introduction of the power loom in 1785, the weaving of cloth was done exclusively by hand. Given its time-consuming nature, the development of cloth played a major role in the settling of early civilizations, as well as the expansion of cultures through trade. In addition to household cloth production, historical records from Middle Kingdom Egypt show that there were also textile economies that relied upon the labor of enslaved workers and household servants.

Although some weavers may have resented the work forced upon them by their gender or socioeconomic background, these women played a critical role as historians, recording and encoding qualitative data about their regions, societal structures, daily lives, events, and even myths into their work. Even after the development of writing, textiles were a vital way to memorialize histories. The Andean people used "quipu," a recording device made of string that used strategically placed knots to record data. The weaving of tapestries spanned many time periods and geographies and often featured pictorial scenes to commemorate battles, regimes, and preserve myths. Embroidery samplers were a common practice amongst young girls in Western Europe and the United States, signifying their social class and passage through adolescence. Most surviving examples come from the 19th and early 20th centuries, in which girls between ages six and sixteen record information such as their family lineage, along with birth and death dates, in some cases.

According to Barber, cloth has historically communicated in three main ways: "To mark or announce information... [to] be used as a mnemonic device to record events and other data... to invoke "magic"--to protect, to secure fertility and riches, to divine the future, perhaps even to curse."[4] Even that which is considered decorative serves as a device in which to express a region's geographic location, as well as its peoples' values and identities. Color has oftentimes been used strategically during ritual and ceremonies: black is an indication of mourning, while white adorns a bride. Purple is associated with royalty, due to the preciousness of the murex shell, from which the color purple originated in the Aegean region. In the case of the Scottish Highlanders, woven plaids unique to a family clan identified the wearer as belonging to that clan.

Only in the last 200 years or so has textile work become marginalized, often associated with older generations. The introduction of the power loom in the late 1700s was a keystone of the first major industrial revolution, in which the production of cloth was mechanized and labor largely left the home. As a result, skill was outsourced to machines and handwork began to decline, relegated more and more to the margins of society.

FIGURE Nº 3
INSTALLATION VIEW OF THE EXHIBITION "WALL HANGINGS."
FEBRUARY 25, 1969–MAY 4, 1969. PHOTOGRAPHIC ARCHIVE. THE MUSEUM
OF MODERN ART ARCHIVES, NEW YORK. IN882.5. PHOTOGRAPH BY STAN RIES.

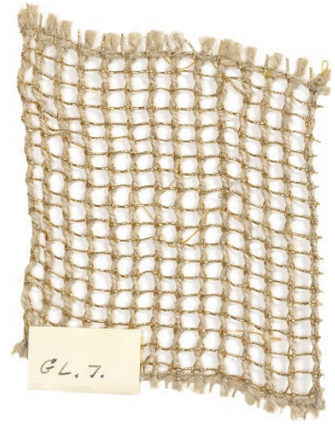
A textile resurgence has been afoot for the last century, not only domestically, but also formally in academic and gallery spaces. Around the 1920's, artists coming from the German Bauhaus weaving studio were focusing on textiles as sculptural and functional entities. Anni Albers, German b. 1899, was among these artists, a pioneer of textiles within both art and design in the mid-20th century.

Albers and her husband, famed color theorist and painter Josef Albers, brought their ideologies to the US, where they taught at Black Mountain College from the early 1930s to the late 1940s, and later to New Haven, CT where Josef taught at Yale. There, Josef Albers encountered Sheila Hicks, American b. 1934, a masters student working in weaving at the university from 1954-1959.

By the 1960's, textiles as fine art were beginning to weave themselves into formal settings. As textiles gained entry into the contemporary art world, they were met with mixed reactions. Many viewers found themselves unable to look beyond the femininity, domesticity, and functionality of the media. MoMA's 1969 show, Wall Hangings, co-curated by Mildred Constantine and Jack Lenore Larsen, was the first of its kind to bring contemporary textiles into such a formal viewing space. Despite the pedigree of the included artists and the impressive venue, Wall Hangings was minimally reviewed, and critically at that.[5]

Both Albers and Hicks were among those included in the show. Both artists, designers, and craftspeople, they rejected the idea of putting strict labels upon themselves and their work, preferring to exist outside the boundaries of these traditional categories.

Anni Albers, however, did lean more in the direction of design, specifically through her weaving of textiles with consideration to form, light, materiality, and function within the context of interiors. She spent 30 years designing fabrics in collaboration with the Knoll Textiles Department, bringing high-end designs to homes around the world. Albers also wrote and gave many talks over the course of her career, in which she voiced her viewpoints about design, the hand, materiality, structure, and tactility, to name a few. Albers' conceptual and functional approach to using textile material as a medium for design has continually inspired my own approach over the last decade.



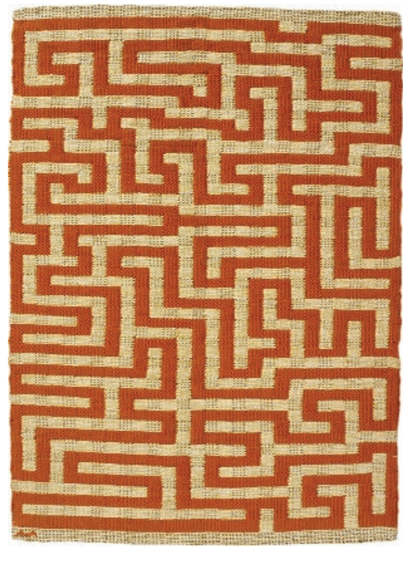


FIGURE Nº 4, 5
ANNI ALBERS: TEXTILE SAMPLE, RED MEANDER (ALBERS FOUNDATION)

Hicks, on the other hand, has used textiles as a medium for sculptural expression. Amongst an impressively vast body of work, she is well known for her small woven studies, in which she reflects on her daily life through thread. Sourcing inspiration from Hicks' approach to textiles as a form of sketching, for the last several years I have maintained periods in which I produce a small woven work daily, prompted by either the distillation of my surroundings into thread and fiber, or the pursuit of exploration with a new technique or material.

FIGURE Nº 5-8
SHEILA HICKS (CLOCKWISE FROM TOP LEFT):
EFFONDREMENT, PHARE DE STIFF, MINIME, QUARRY SPIDER
(MUSEUM OF MODERN ART)

In May of 2024, while in residence at AZ-West, the property of artist and designer Andrea Zittel, I made one woven work each day in response to the alien landscape of the High Desert. This iterative series was also an exercise in quantitative design in that each piece utilized 60 warp threads, each representing the number of seconds in a minute. The 12-20 weft picks per piece represent the average number of breaths a human takes in the span of that minute. In this way, the works use the meditative process of weaving to actualize the experience of breathing for one minute.

FIGURE Nº 9-13
MEDITATION ON BREATH (INSTALLATION VIEW)
(CLOCKWISE FROM TOP LEFT): MEDITATION ON BREATH 010, 013, 006, 004

Working outside of the woven space, yet interacting purely with the grid is the painter Agnes Martin. Situated within Abstract Expressionism and Modernism, Martin is best known for her square paintings containing geometric lines and mimetic grids. Systematic in their visual organization, Martin's grids exist in the realms of both the material and spiritual. Her attitude towards art and the life of an artist was about rejecting intellect for feeling, the pursuit of beauty as a feeler than seeing, and turning inwards for guidance and inspiration. I see Martin's work as a pursuit of raw, stripped truth. Her use of the grid and the systems that govern it nod to the purity of that system, as well as the repeatability of it. The lines are repeated over and over, but the number of and distance between them gives each grid its uniqueness. These variables, along with color, provide a fertile ground for the exploration of her inner perception and her subjective concept of beauty.

FIGURE Nº 14
AGNES MARTIN: WHITE FLOWER (SOLOMON R. GUGENHEIM MUSEUM)

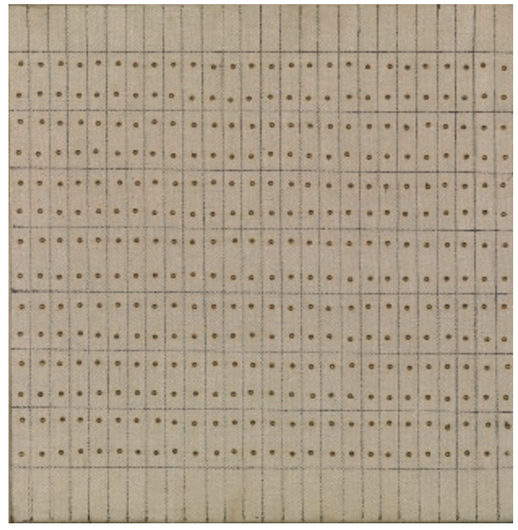


FIGURE Nº 15
AGNES MARTIN: LITTLE SISTER (SOLOMON R. GUGENHEIM MUSEUM)

OFFERINGS : A MANIFESTO

Ritual: A Performance Of The Ideal

CRAFT, LIKE RITUAL, IS A PROCESS OF INTENTIONED ACTION THAT MOVES TOWARDS A DESIRED OUTCOME. THIS OUTCOME MAY BE OBJECT-BASED, LEARNING-BASED, MATERIAL- BASED, FUNCTION-BASED, AESTHETIC-BASED, SKILL-BASED, ANY, ALL OF, MORE THAN THE ABOVE.

IN THE RITUAL SPACE, WE PERFORM THAT WHICH WE WANT TO SEE IN THE WORLD, WE EMBODY IT WITHIN OURSELVES. WE PERFORM OUR VALUES, OUR HISTORIES, AND OUR DESIRES. WE BECOME A SITE OF CHANGE AND A VESSEL FOR HOPE.

Slow, Methodical, Meditative.

TO WEAVE IS TO ENGAGE WITH EACH OF THESE. IN THE WOVEN SPACE, THREADS MOVE SLOWLY, SUSPENDED IN TENSION AND IN TIME. THE WEAVER REPEATS HERSELF OVER AND OVER.

The Hand

THE HAND AS THE ORIGINAL TOOL. THERE IS A HAPTIC KNOWLEDGE IN EACH OF US. IT DEEPENS WHEN WE ACKNOWLEDGE IT, ENGAGE WITH IT, WHEN WE HONOR IT.

HERE, OUR POWER LIES. WHAT CAN BE IMAGINED IN THE MIND IS ACTUALIZED BY THE HANDS. WE MUST PAY ATTENTION TO OUR NATURAL INCLINATIONS AND ALLOW THEM TO BE OUR GUIDE. OUR HANDS KNOW THE WAY.

Honor the Craft, Honor Your Predecessors

WEAVING IS AN AGE-OLD CRAFT. MATERIAL KNOWLEDGE, HAPTIC KNOWLEDGE, LIVES THROUGH US. AT THE LOOM, WE ARE SPIDERS, STORYTELLERS, SPELL CASTERS. I AM EVERY WEAVER WHO HAS EVER WOVEN, AND SHE IS ME. WE WIND THE WARP TOGETHER. WE COMB OUR FINGERS THROUGH THE LONG FRINGE. WE EXPRESS TENSION WITH THE FORCE OF OUR COLLECTIVE BODY. THE FABRIC IS BORN FROM US, WHOLE, AN ARCHIVE OF ALL WHO CAME BEFORE.

Material Partnership

THIS THREAD JOURNEYED TO REACH MY HANDS. I HAVE A RESPONSIBILITY TO IT - TO HONOR IT BY SHAPING IT WELL. WE ARE PARTNERS, MATERIAL AND ME.

OUR WORK INVOLVES TRANSFERRENCE. IT IS AN INTERPLAY OF INFLUENCE. BOTH PARTIES LEAVE CHANGED.

Weaving Worlds

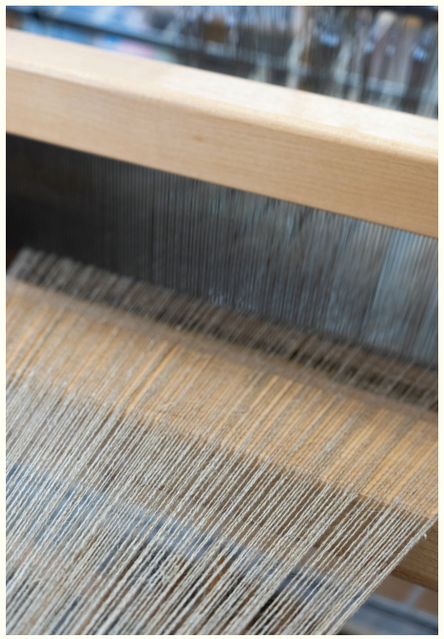
IN THE WOVEN SPACE, A SORT OF MATERIAL ALCHEMY IS AT PLAY. SOMETHING BECOMES FROM WHAT WAS ONCE NOTHING. THE PROCESS OF WEAVING IS ONE OF EVER-BECOMING.

A FABRIC IS A LANDSCAPE AND A MAP, RICH WITH INFORMATION. INFORMATION ABOUT OUR SURROUNDINGS - OUR INNER AND OUTER WORLDS, OUR STORIES, OUR AESTHETIC CHOICES, OUR VALUES.

IN THE WOVEN FIELD, WE SEW THE SEEDS OF HOPE, RESISTANCE, KNOWLEDGE, SKILL. WE CAST THEM LIKE SEEDS AS WE COMB THE THREADS AND THROW THE SHUTTLE.

On Ritual

The process of weaving is visceral, experienced in the whole body through a series of repeated actions.



To make a warp, the yarns which are later threaded into the loom, the weaver uses a warping board, guiding the endless length of material through her hands and around the pegs. Not a single inch of warp arrives at the loom untouched by the hands of the weaver.

FIGURE Nº 16, 17
IMAGE CREDIT: JACK GESHEL

After winding the threads onto the back beam, the weaver spends hours meditating over the threading of heddles. Using a flat metal hook, she guides each individual end through the eye of a long, flat needle, giving utmost attention to the order and position in which the heddles are arranged.

The weaving itself is yet another endless repetition. Treadles are pressed in a particular sequence, as many times as necessary to complete one cycle of the pattern. The sequence is then repeated over and over, as many times as is necessary to reach the desired length of the fabric. The weaver is witness to a rhythmic dance of the warp strings, the melodic tinkling of hundreds of metal heddles, the recurrent movements of her body.

In this way, weaving is a kind of ritual. The process is, after all, one of repetition, a series of sustained actions, performed within fixed conditions for the purpose of facilitating an evolution of sorts.

FIGURE Nº 18
IMAGE CREDIT: JACK GESHEL

"Hidden within the seemingly common everyday actions of how we go about our life are rituals that shape our belief and communicate information to our immediate community."[6]

"Rituals reveal values at the deepest level... Surely men express in ritual what moves them most."[7]

Since the dawn of time, ritual has been present. Not reserved solely for the actions of man, ritual exists within the performances of animals, plants, even the cosmos. After all, the sun does rise and set each day, a time-based practice that sustains all earth-bound life.

As a whole, ritual is a difficult concept to define. On the matter of ritual's evasive interpretation, Ute Husken and Donna L. Seamore state it quite literally: "Clear-cut, universal definitions of ritual are inherently problematic... The term and its equivalents are used in a variety of ways, each embedded in a specific discourse, set in a specific time and location, defined by a specific group, and deployed for different reasons."[8]

At its core, ritual is considered a physical and/or verbal performance that can be done individually or collectively. It can operate within or outside of religion, from the sacred to the profane. From a handshake to the tossing of a bouquet, brushing your teeth to taking communion, birthdays to funerals, ritual is infused into the occasions of our lives. Some rituals may happen only once, like the christening of a child. Some happen everyday, like having your morning tea or coffee.

Interestingly, many attempts by historians and scholars to understand the nature and function of ritual uses an antonymic approach: is ritual traditional or modern, based within magic or religion, founded in science or logic, rational or non-rational?[9] What does it communicate and how does it do so? Who practices it?

For the sake of my argument, I will henceforth focus on ritual in this way: Ritual is a series of actions performed in a particular way that reveals its participants' values and allows them to both embody and perform their ideals. These actions can be repetitive, a methodic sort of practice, embedded with haptic/tactual recursivity and encoded with meaning. While not overtly concerned with religion, ritual can be experienced at the spiritual level, performed in such a way that promotes healing and wholeness.

If ritual can be defined as a series of intentional actions, brought about for a specific purpose and performed with the goal of enacting change, then habits can be considered a kind of ritual. Brushing your teeth, buckling your seatbelt, checking your phone when first waking. From the mundane to the healthy to the outright detrimental, each of our performed daily actions build upon themselves day in and day out.

The process by which we form habits deals in experience-dependent neuroplasticity. At any given moment, our brains are performing an unceasing flurry of neural activity. Most of the information our brain filters is background noise - the light level in the room, the sounds of traffic nearby, the tactile experience of the clothing you're wearing. This information is processed on a "surface level" of our brains for short-term world building and awareness of our surroundings. On other, deeper levels, our brain is running on familiar neural pathways. Our brain builds and strengthens the pathways of thought and learning that we exercise most often.

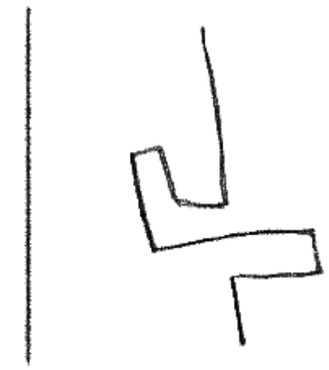
Pavlov's famous research, though focused in large on conditioned sensory response to a stimulus or association, provides evidence for the effectiveness of experience-dependent neuroplasticity. A thought or response can be wired into the brain through repetitive exposure. Whether it be a dog salivating over the sound he associates with a meal or the nagging thought that always creeps in at an inopportune time, our neural makeup is in a constant state of wiring and building. The more we think a particular thought, the deeper entrenched it becomes in our brain's operative paths and the more likely our brain is to travel that path in future. Think of the packed dirt of a well-worn hiking trail or the veined, ribbon-like trails of silt etched into a river bed.

While ritual demonstrates its ability to enact change on social and cultural levels, so too it works on neural levels. As we consciously or unconsciously perform ritual activities, especially those repetitive in nature, we are the hiker imprinting our boot marks into the trail. Because our brains are wired for homeostasis, we will choose these same paths over and over again, regardless of their objective or subjective efficacy, forming vast trail systems across the terrain of our inner world.

Can one think their way out of this entrenched network? Much scholarship and research in recent years proves that we can. In opposition to experience-dependent neuroplasticity, we can practice self-directed neuroplasticity, in which we consciously create new neural pathways through intentional thought and action.

If a certain well-worn trail doesn't lead us to the desired destination, we can chart a new course. We don't need to know the way there; we can hold space for a multitude of courses on the journey. It will likely be difficult to forge an untrod path. It will reveal us to ourselves as we hack through the foliage of our constructed neural environment. But something happens as we continue to choose that path, to walk it day in and day out. The weeds die out, trodden underfoot. A certain tree becomes a familiar landmark. We discover intricate beauties along the way and learn to recognize subtle shifts as we move through the elevation. Soon enough, new trails have been forged, now habitual routes that lead towards deepened understanding and growth.

In other words, you fight old habits with new habits. You rewire the brain from processing previous lines of thought with new and intentional lines of thought. In this way, ritual action and ritual thinking can be used intentionally to reconstruct one's inner world.



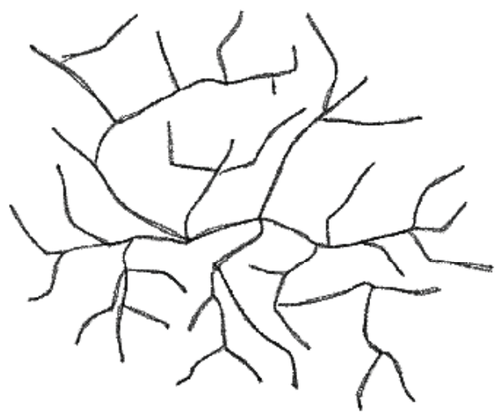


FIGURE Nº 19
WEAVING ON THE TISSART

"We often find in ritual enactment references and resemblances to daily practices. For [historian jonathan Z.] Smith, "ritual is a means of performing the way things ought to be in conscious tension to the way things are in such a way that the ritualized perfection is recollected in the ordinary, uncontrolled course of things." The expression of a tension or discrepancy between the haphazardness of daily life and the formalized, repetitive, idealized perfection of ritual is, for Smith, ritual's principal function. Ritual is a performance of the ideal, in full relationship with the messiness of life. For Smith, ritual is a special cultural space where life can be imagined, staged, watched, practiced, done right, and then, hopefully, recollected in daily life- but always with the understanding of a gap or distance between ritual and ordinary life. Ritual is in part a model for action, but even more profoundly ritual discloses and enacts the experience of distance between what is and what is hoped for, between the real and the unattainable, actuality and possibility." [10]

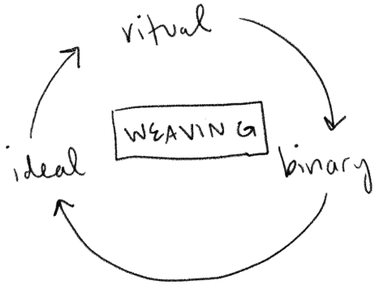
Given this interpretation of ritual, the expansive capacity of the concept makes room for craft. It is from this position that I make a case for craft as ritual. I do not intend to speak of craft in regards to its ability to produce objects that support ritual performances; rather the act of engaging with craft is the ritual in and of itself.

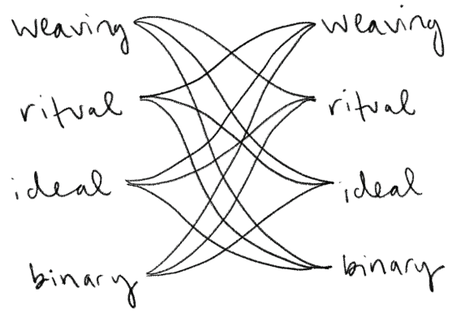
Craft was once our heritage and our right. It encompassed our labors, told our stories, reflected our values, spoke to our daily lives, and allowed us to realize our generative capacity. Over the course of time and its subsequent industrial and technological revolutions, craft lost its place in the core of our beings and surroundings. By engaging with the act of craft, by participating in its resurgence, by upholding the skills and labors associated with it, we preserve our stories, myths, histories, and skills.

The performance of craft, the engagement of skill and subsequent production of objects, exists in constant tension with a modern world that prioritizes convenience and constant consumption. To engage in craft: to weave a cloth, to build a table, to forge a cup or sew the spine of a book, is to work in direct opposition to the pace of culture. In the slowness, in the self-sufficiency of it all, we perform our values as agents of anti-capitalism. We repeat ourselves over and over, shaving down a table leg, advancing a needle through fabric, hammering metal upon metal. Each of these actions, persistently echoed, throws into stark relief the chasm between modern values of consumption and traditional values of the hand. Yet, the more we engage, the more we perform our principles and build personal culture. The gap between what is and what can be grows ever smaller. Here, transformation is ever-occurring.

FIGURE Nº 20
PORTAL 02, DETAIL

"THE WEB"





weaving = ritual

ritual = ideal

ideal = binary

binary = weaving

INTERPRETATION:

THE REPETITIVE AND MEDITATIVE ACT OF WEAVING IS A FORM OF RITUAL

RITUAL IS A PERFORMANCE OF THE IDEAL (OUR VALUES)

THE IDEAL IS REPRESENTED IN THE BINARY MATRIX - A FORM OF PURE ORDER AND CONTROL

BINARIES ARE THE FOUNDATION OF WEAVING.

On Systems

FIGURE Nº 21
SCHACHT STANDARD FLOOR LOOM, (SCHACHT SPINDLE COMPANY)

The woven space is one of fixed outcomes carried out by elements and mechanisms behaving in predictable manners.

At its most basic, cloth is a single plane, made up of strings moving in two directions and intersecting at right angles. The warp is the vertical plane of threads. The weft is the horizontal plane of threads, which works its way through the warp. In plain weave, the foundational fabric structure, the weft moves: over, under, over, under, through the plane of warp from one side of the cloth to the other, building up one row, or pick, at a time.

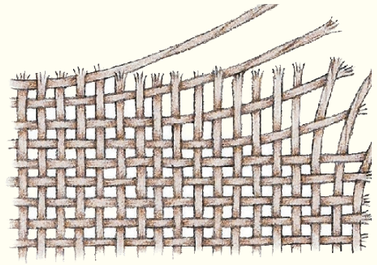


FIGURE Nº 22
WOVEN FABRIC DRAWING (WHATTHECRAFT.COM)

The pattern in which the warp and weft come together is determined by the order in which the weft passes through the warp: how many overs followed by how many unders, and so on and so forth. Within the loom, this is determined by the order in which the warp is threaded into the harnesses, as well as the order in which the harnesses are raised to receive the horizontal pass of weft. The formula input into the loom removes the limitless combination of warp and weft, instead reducing the potential outcomes to that which can be structurally allowed by the confines of the pattern.

Make one mistake anywhere and the error is obvious. The cloth is flawed, wrong, and the mistake must be rectified. The better the weaver, the longer she has worked and the deeper understanding she contains of the craft, the fewer mistakes she will make. The mastery of her skill depends upon pattern recognition, the absolute truths held in numbers and sums.

The more I weave, the more familiar I become with material and its qualities, structure, pattern. Beforevv executing an idea, I can see it fully realized within my mind's eye, practically feel its drape between my fingers. I can imagine hundreds of fabrics, thousands of results, without ever having to thread the harnesses and pass the shuttle. Fabrics become hypotheses, easily proven through careful planning and execution.

In weaving, there is very little opportunity for chance. Most elements behave predictably. Chance lies almost solely with the weaver, all but eliminated, save for human and mechanical error. Without complete understanding of materials, the weaver can select a warp thread too fine for the structure, causing breakage during the weaving process. Or perhaps a treadle is pressed out of order, disrupting the continuous surface pattern. In the making of mistakes, the opportunity for chance grows smaller still, each lesson (hopefully) learned so as to be avoided in future.

Working this way for nearly a decade, in a space of fixed coordinates and predictable properties, began to change me on a fundamental level. My penchant for predictability grew unchecked, encouraged even. With structure reduced to binaries:

ups
and
downs,
overs
and
unders,

and material reduced to its qualities, I began searching for other concepts that could be narrowed to reveal only two tidy modes. My need for the idealism of binaries and "absolute" truths became the lens through which I perceived and judged my inner and outer world.

Choices were now "right" or "wrong."

Things could only be one way or the other.

There should be less of some things and more of others.

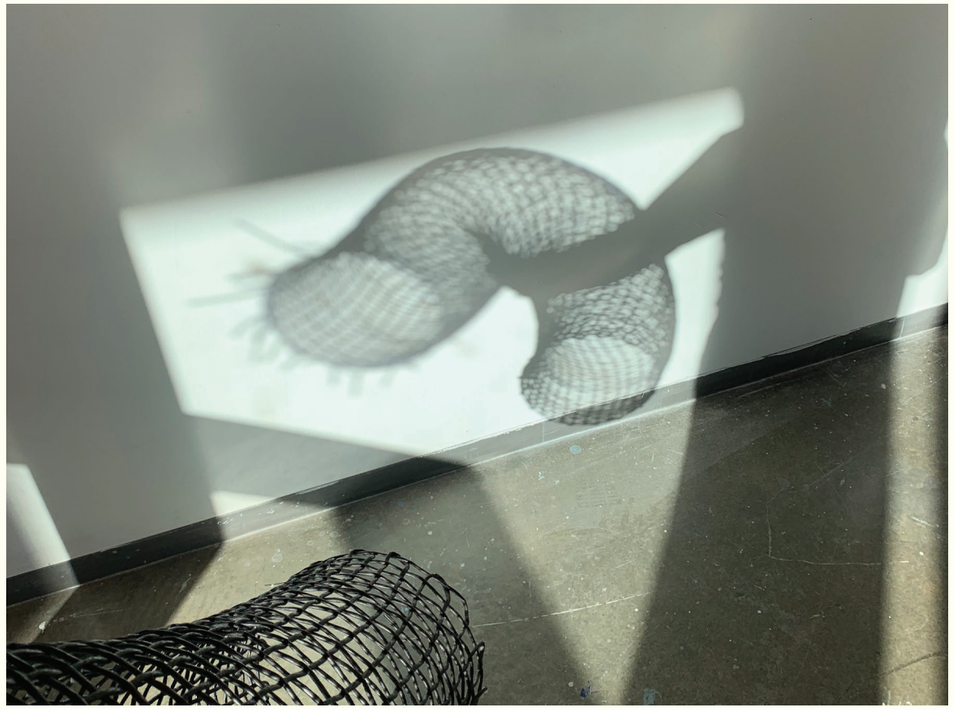
I would always feel this way. Things would never change.

Over time, I lost the ability to hold multiple truths and opinions simultaneously. My perception became two-dimensional, somehow more reduced than that of the textiles I fabricated. By the time I found myself pursuing a graduate degree in my creative field of study, I had all but forfeited my rational elasticity.

Largely unbeknownst to me, my brain was building systems and running programs with a clear goal and desired output: control via simplification. By reducing the world around me into an organized matrix of binaries, the operative field became much easier to navigate. My internal systems were wiring themselves for efficiency: everything could be better categorized and controlled by reducing it to one thing or the other.

A sort of dull, flatness worked its way into my process. The predictability I had once craved in the woven grid now held no challenge and no chance. I was playing a game with rules that no longer served or excited me.

Entranced by the sudden availability of new materials and tools offered by the graduate program, I abandoned my planar work on the loom, instead adopting a process of weaving in the round. I began producing vessels and tubular, portal-like structures using materials like twisted paper, reed, and seagrass. (Insert images/plates) In this new way of working, I still activated the binary space of overs and unders, but the material took on a new agency,



Chance found its way into my work again. Motivated by the exploration of unfamiliar material and its place in my contained and self-aware process, I sought to close the gap between what was known to me and what wasn't, what I could see in my mind's eye and what my hands could produce. In some cases, a material's propensity naturally inclined itself towards my motives. But even then, surprising connections would present themselves, unexpected results finding me in moments of thrilling curiosity: the play of light and shadow in the tubular Portals (image), the natural gravity of woven paper as it sagged into a settled vessel form.

But the gap was not so easily narrowed. The more I pushed my material and felt it push back, the more apparent it became that the fixed nature of the traditional weaving process had rendered me equally fixed, rigid, incapable of malleability. This conclusion fascinated me. My obsession with reducing and categorizing the messiness of life had stripped it of nearly all color. Everything had become black and white, one extreme or the other. It had once made sense that way.

In order to better understand this phenomenon, I would need to examine my internal wiring, search the neural network of trails I was walking time and time again, embedding wholly in my subconscious. If their end point was not the desired destination, I would need to reroute, cut a new path, move towards an unfamiliar destination. By mining the texts of my daily writing practice, I began to recognize the patterns of my thought, the swings, the extremes, the subjectively "irrefutable" truths to which I so desperately clung.

These binary patterns and their implications could only be explored in the place from which they were born and trod, step after step, pick after pick: the loom.

FIGURE Nº 23
PORTAL 02, SHADOW STUDY

I've begun to notice that people have been making comments about me, to me.

"You're so organized."

"You're so on top of it."

"You must run a tight ship at home."

(sexist, but okay...)

These comments are delivered like praise, but they're also a critique and a judgement.

Obviously I must be operating at some level foreign to most, one that supersedes universality. I don't understand how everyone else operates. I only know my own experience, firsthand in the being of it, and then secondhand when contextualized through the lens of others.

I feel self-conscious, like my operative state has been "othered." Am I somehow less human, more machine?

It's true, I prefer to run a system of simple choices, clear paths from A + B. I have an innate sense of how things should be organized and managed. How to reduce and categorize. In receiving feedback on the nature of these systems, I become wary of them.

Am I willing to question these systems, analyze their nature and efficacy? Do I have a choice? What would it mean for me to deconstruct the boxes within which I have contained myself?

Texere (v), from the Latin texō:

1. TO CONSTRUCT WITH ELABORATE CARE
2. TO PLAIT (TOGETHER)
3. TO WEAVE

ENGLISH DERIVATIVES INCLUDE:
TEXT, TEXTILE, AND TEXTURE

FIGURE Nº 24
MEDITATION ON BREATH 01, DETAIL

The Loom is a Computer

Binaries and the Matrix

FIGURE Nº 25
MODEL OF A JACQUARD LOOM, SCALE 1:2, UNKNOWN MAKER, 1867.
(SCIENCE MUSEUM GROUP COLLECTION)

Looms and computers share a common language, one of binaries, pixels, systems, and data. Just as computers perform functions based on code, algorithms, and algebra, so too does the loom. Perhaps one of the earliest processes to employ the gridded matrix and operate on a system of binaries, weaving actualized algebraic solutions likely before algebraic theory was even conceived. Based on the organization of numbers, which adhere to fixed patterns, fabric occurs when these prescribed formulas are made physical in the crossing of threads - the number of times each weft passes over and under each warp and in what order.

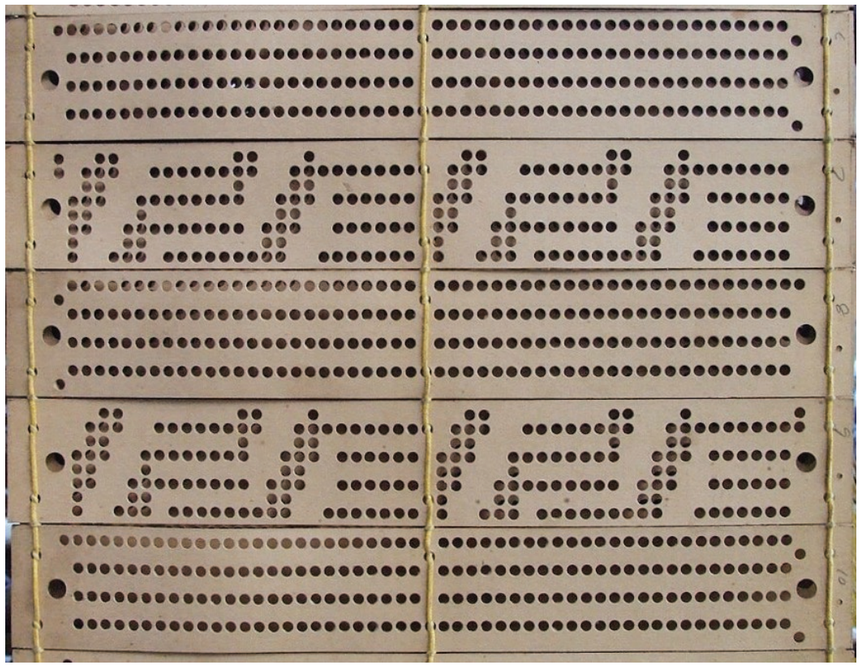
Leading into the 18th century, the desire to produce complex weave structures less laboriously led to the invention of the Jacquard loom in 1804. This loom operated on a series of wooden punch cards, which, when fed into the loom, communicated which warp threads needed to be raised and lowered in order to achieve the intricately woven designs. Prior to this, a “draw boy” was needed atop the loom to manually raise and lower these threads for the weaver below.

Similarly, this method of information transference was actualized in other fields for vastly different outputs. The player piano of the late 19th century used a roll of paper encoded with punched marks, signaling the order in which the piano should play notes. A few decades earlier, punched rolls of paper saw use in telegraphy systems, the machines of which could decode the order of punched holes to receive communications.

FIGURE Nº 26, 27
PLAYER PIANO ROLL, FIVE AND EIGHT-HOLE WIDE PUNCHED PAPER TAPE (WIKIPEDIA)

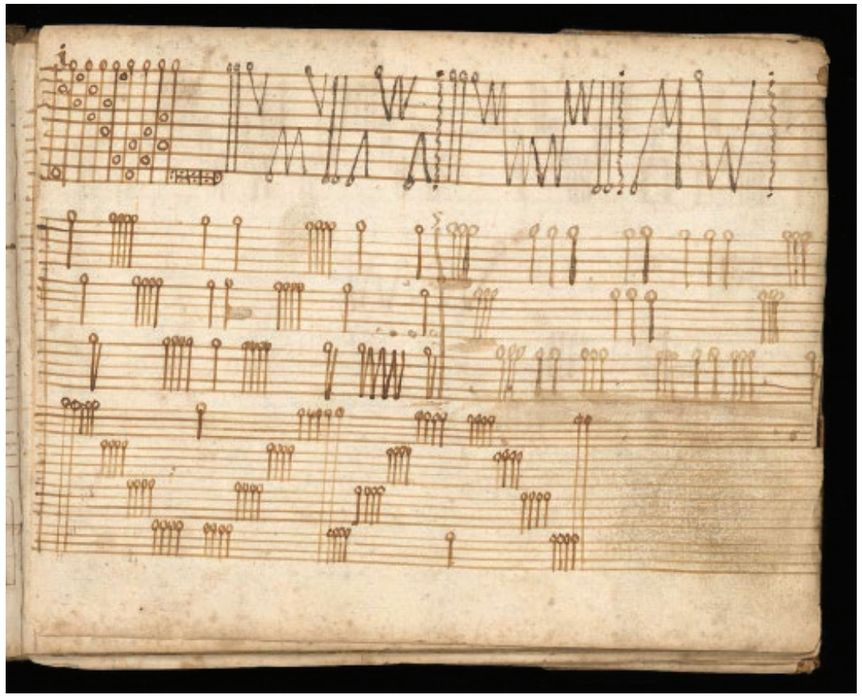
Early designs for computing machines would use these punch-code systems, as well. In the mid-19th century, as Charles Babbage worked to develop his Analytical Engine, a design for a mathematical computational tool which was never realized, he looked to the Jacquard loom's punch card system as a means by which to feed data into his machine. In this way, both in Babbage's design as well as the Jacquard loom, the punch cards served as the machine's software, and their punched holes as a form of binary data encoded into the cards.

Although an often-referenced quote[1] by Babbage's creative partner Ada Lovelace likens the punch-card computing system to that of the Jacquard loom, and thus misconstrues the Jacquard loom as the precursor to the computer, it is possible that the technology of the Jacquard loom did influence the development of the computer. At the very least, the algorithmic executive function of the loom within the binary matrix of a woven plane does establish itself as a system from which many technological frameworks have been built.



1 "the Analytical Engine weaves algebraic patterns, just as the Jacquard loom weaves flowers and leaves"

FIGURE Nº 27
LACED SEQUENCE OF JACQUARD PUNCH CARDS (WIKIPEDIA)

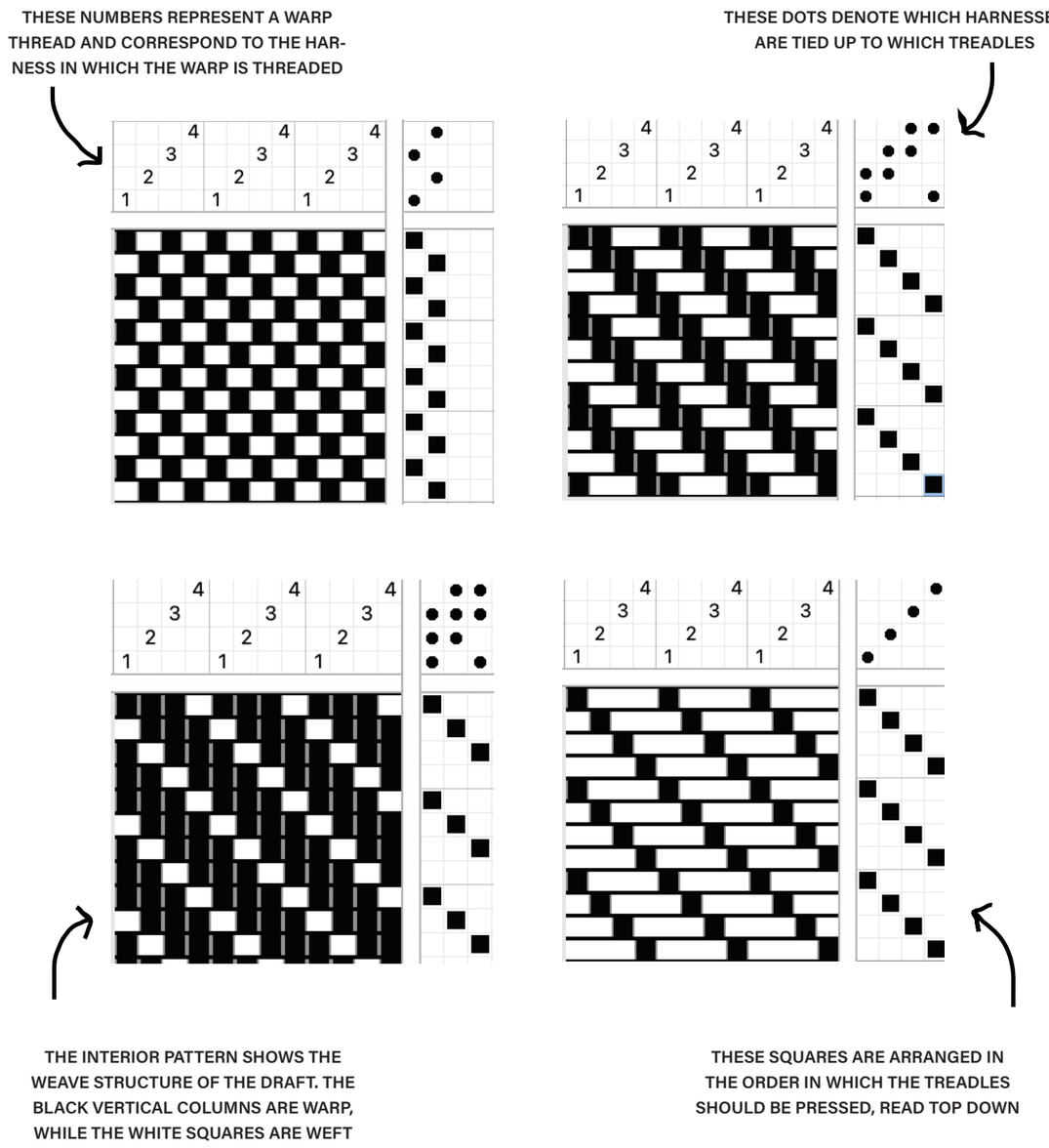


By this definition, while the Jacquard loom cannot irrefutably take credit as a grandfather of the computer, it does prove that a loom is its own kind of computer. Set in motion by Babbage and later adapted by mathematician and computer scientist Alan Turing, the idea of the computational machine was born. Made up of the machine itself (the hardware) and the program which the machine operated (the software), this machine could theoretically detect symbols fed into it via a strip of paper tape, recognize those symbols, and carry out an order assigned to that symbol, such as writing a new symbol, or moving the strip of tape.

In thinking of the loom this way, the loom itself is the hardware: a machine made up of parts with a specific function. The pattern draft is the software on which the loom performs its function: to weave cloth of a specific nature. The data encoded into the draft is integral to the draft's executive efficacy, uniquely encoded for each type of fabric. The draft provides a framework from which to execute the data, while the data corresponds to the order in which threads are input into the loom, as well as the order in which those threads are raised.

FIGURE Nº 28
GERMAN WEAVING DRAFT CIRCA 1804
(COOPER HEWITT SMITHSONIAN DESIGN MUSEUM)

How to Read a Weaving Draft



NOTE HOW THE THREADING IS THE SAME FOR ALL FOUR DRAFTS.
TREADLING IS RELATIVELY SIMILAR, AS WELL. ONLY THE TIE-UP
DRASTICALLY CHANGES TO CREATE THESE FOUR BASIC STRUCTURES.

FIGURE Nº 29
CLOCKWISE FROM TOP LEFT: PLAIN WEAVE, 2/2 TWILL, 1/3 TWILL, 3/1 TWILL

If a plain weave fabric were constructed in the form of a digital matrix, with the zeroes being the space in which the warp is visible and the ones as weft made visible, the fabric would look as such:

0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1

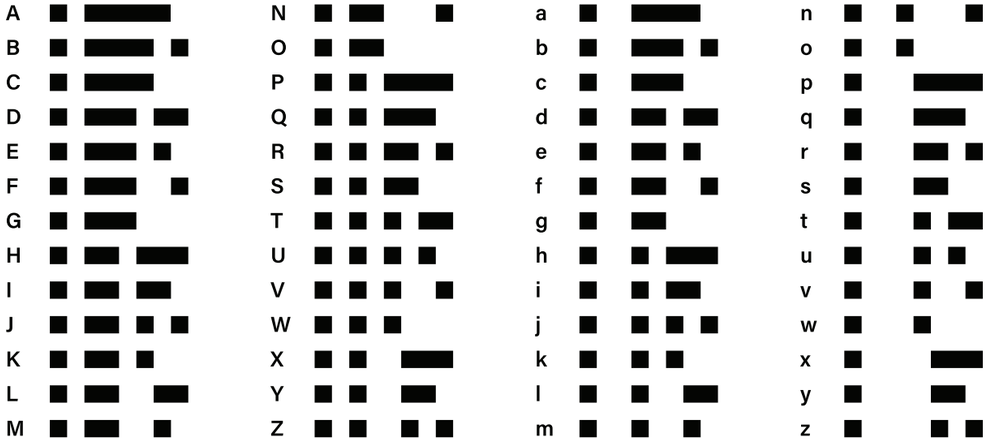
There would be as many digits as there are connection points, each digit reflecting the binary nature of the connection: over or under. Each column is indicative of a warp thread, while each row represents a pick of the weft. In plain weave fabric, the weft crosses over one warp, then under the next, repeated until the weft reaches the final warp end on the right or left side. On its journey towards the other selvage, or side edge of the cloth, the weft alternates the order in which it just crossed: under the first warp, then over the next and so on and so forth.

Now consider the binary code used in the language of computers: each letter of the Roman alphabet is represented by a series of zeroes and ones, eight digits long. For example, the capital letter A is written 01000001. One could represent this in the language of binary textile connections by weaving the weft through the warp under, over, under, under, under, under, under, over. This could be continued using any combinations of binary code letters-turned woven connections, spelling out words, sentences, entire paragraphs and texts using only the raising and lowering of threads.

01000001

On the Matter of Emplacement

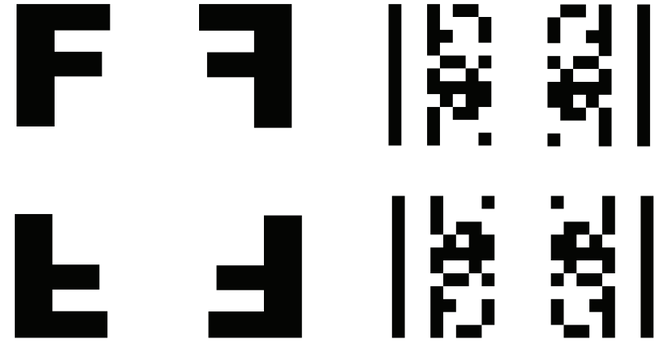
Or, Thoughts on My Work



In my own work, I have chosen to abstract the binary code using an alternative method: by replacing the zeroes and ones with black and white squares, respectively. Resemblant of pixels, the 8-bit string of code is now a row of connected squares, one unit tall and eight units wide. By actualizing these pixelated rows using Adobe Illustrator, I designed a font and assigned the characters using FontForge, then imported the packaged font into my computer's processing system. From this system, I can now type in the language of binary-code-turned-pixels, creating entire texts - sentences, poems, books - constructed solely of black and white squares.

By organizing letters in a vertical format, I affix each word to a structure 8 pixels wide and extending in depth for as long as the writing goes on. This boundary standardizes the appearance of the text, allowing for repeatable designs later on.

With the intention to create repeatable patterns, I began exploring the ways in which the words could be manipulated - flipped horizontally, vertically, and rotated. In this way, each word can present four orientations of itself while keeping an 8-square width. Here, the orientation can be easily recognized using the letter "F."



CLOCKWISE FROM TOP LEFT: ORIGINAL ORIENTATION, VERTICAL FLIP, 180 DEGREE ROTATION, HORIZONTAL FLIP.

From here, the orientations can be combined and repeated to create dozens of unique patterns for each word - see fig. XXX. Within the limitations of my systems as they currently stand, I have identified 52 unique patterns per word. While the exact number of English words in existence is hard to quantify, the Oxford English Dictionary defines 600,000 words from the English-speaking world. Given this numerical data, it can be reasonably estimated that there is a potential to generate using my systems approximately 31,200,000 individual patterns using English words alone. However, there is room for my systems to accept new rules regarding pattern orientation, therefore having the capacity to generate additional patterns, the quantity of which is currently unknown.

By adhering to strict self-imposed rules, I have designed a system that uses recursive and iterative methods to manifest digital code into a series of high-contrast patterns that speak to the binary language of both computers and looms. In order to bring personal meaning to the patterns, I've chosen to work with words particularly responsible for constructing my inner narratives, which I identified by mining the texts of my personal writing practice. Because the concept for this work focuses on my black and white thinking, it is important that two opposite words are chosen and represented together.

FIGURE Nº 30 (FOLLOWING PAGE)
SYSTEM FOR DESIGNING PATTERNS USING BINARY DESIGN FONT

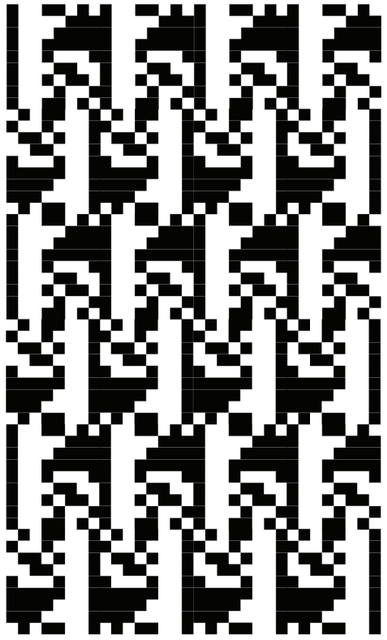
information

direct drag
180
180
V flip
V flip
H flip
H flip

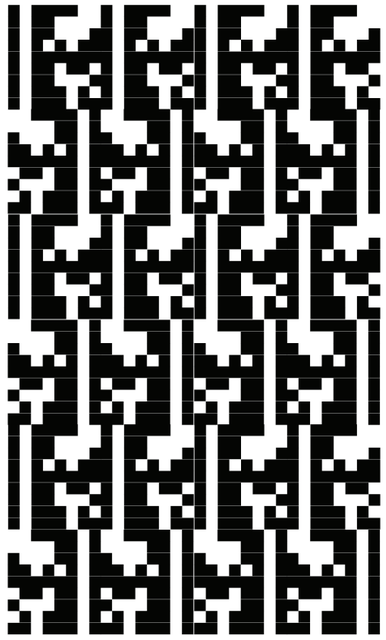
direct drag
180
V flip
slide
H flip
180
V flip
direct drag
H flip

direct drag
180
V flip
slide
H flip
180
V flip
direct drag
H flip

After translating the words into the 8-bit font, then generating the array of possible patterns, I select the pattern that feels most appropriate for the word, both aesthetically as it represents the word's meaning and for its compatibility with the word's antonymic pair.



In the diptych pairing entitled *CONTAINED* and *expansive* (fig. x, x), the contrast between the two patterns is apparent. *expansive* is written in lowercase letters, the code ripe with more 1s than there are 0s, thus whiter. This pattern was chosen for its large repeat. The motif stretches, pointing outwards in two directions, giving the sense that it yearns to grow, to move, to stretch.



On the other hand, *CONTAINED* employs capital letters, the binary code of which contains more 0s than 1s. This produces a much darker, heavier pattern. The repeat appears smaller than that of *expansive*, giving the scene a sense of restrictedness and crowdedness. The stark vertical white lines clearly denote each repeat, producing a tightly organized design.

A curious phenomenon emerges from between the black and white pixels. In spite of the stark blackness and whiteness, an optical gray is present in the work, experienced the further back one moves from the pattern. In their attempt to perfectly contain and categorize an antonymic perception, the works have also presented an additional approach in which both ends of the spectrum can be held in the same space, while also nodding to the space between each pole.

FIGURE Nº 31
DIGITAL SKETCH, EXPANSIVE AND CONTAINED

In order to actualize the patterns in woven form, I designed a weaving draft that could accurately weave a majority of the available patterns using a technique called rep weave, a warp-faced structure so named for its densely organized warp threads, which cover and obstruct any appearance of the weft. It was important to me that the pieces be large in scale, confrontational, a stark face of high-contrast pattern. To do that, I drafted the structure to make each black or white pixel 1" in width. With a four-repeat width at 8-bit each, the woven face is 32 inches wide, and as tall as the desired number of vertical repeats. I chose black and white warp threads to nod to the black and white modes of my thought processes.

I'VE CHOSEN TO ENGAGE THE ACT OF WEAVING TO MAKE THIS WORK FOR SEVERAL REASONS:

IN THE METHODICAL AND REPETITIVE ACTIONS OF WEAVING CLOTH, THE WEAVER ENGAGES IN A RITUAL, PERFORMING HER VALUES AND IDEALS, FROM WHICH SHE EMERGES CHANGED.

THE INTERTWINED ETYMOLOGIES OF THE WORDS "TEXT" AND "TEXTILE" IS A FERTILE SPACE IN WHICH TO DRAW PARALLELS, BLURRING THE LINE BETWEEN THEIR DISTINCTIONS.

BECAUSE THE LOOM IS THE PLACE THAT ENCOURAGED MY NATURAL GRAVITATION TOWARDS BINARY MODES OF REPRESENTATION, IT SEEMED ONLY FITTING TO RETURN, THIS TIME USING IT AS A TOOL TO UNLEARN THESE UNHELPFUL PATTERNS.

ENCODING MY OWN HISTORY INTO CLOTH GAVE ME A CHANCE TO COMMUNE WITH WOMEN OVER THE COURSE OF MANY MILLENNIA WHO HAVE DONE THE SAME.

FIGURE Nº 32
EXPANSIVE, 2025, 40" X 60"

FIGURE Nº 33
CONTAINED, 2025, 40" X 60"

For these pieces, the weft consists of a colorful grouping of found plastic, rolls of which were donated to the fabrics departments many years ago. The thin extrusion has a reinforced core, likely nylon.

The material is pliable, but without elasticity. Resemblant of thin wires or cables, the plastic strands give the sense that they could have been stripped from computing cords, once responsible for transmitting digital information.

The weft pokes out of the edges of the wall pieces, much like the splayed ends of fiber optic cables, breaking the monotonous black and white surface of the encoded woven tablets. The work concludes as both a flat and three-dimensional presence: a vertical panel made up of hundreds of threads, the rippled and pixelated surface pattern realized through the inclusion of thousands of horizontal strands. Organized, meticulous, and yet playful, the panels' arresting presence and visual static draws the viewer into a trance. What meaning lies within, between the binary composition, what is to be deciphered within the surface code?

FIGURE Nº 34
CONTAINED, DETAIL

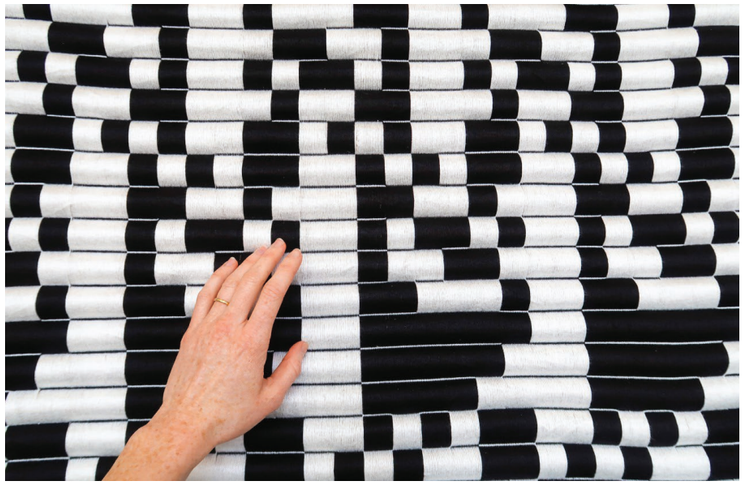
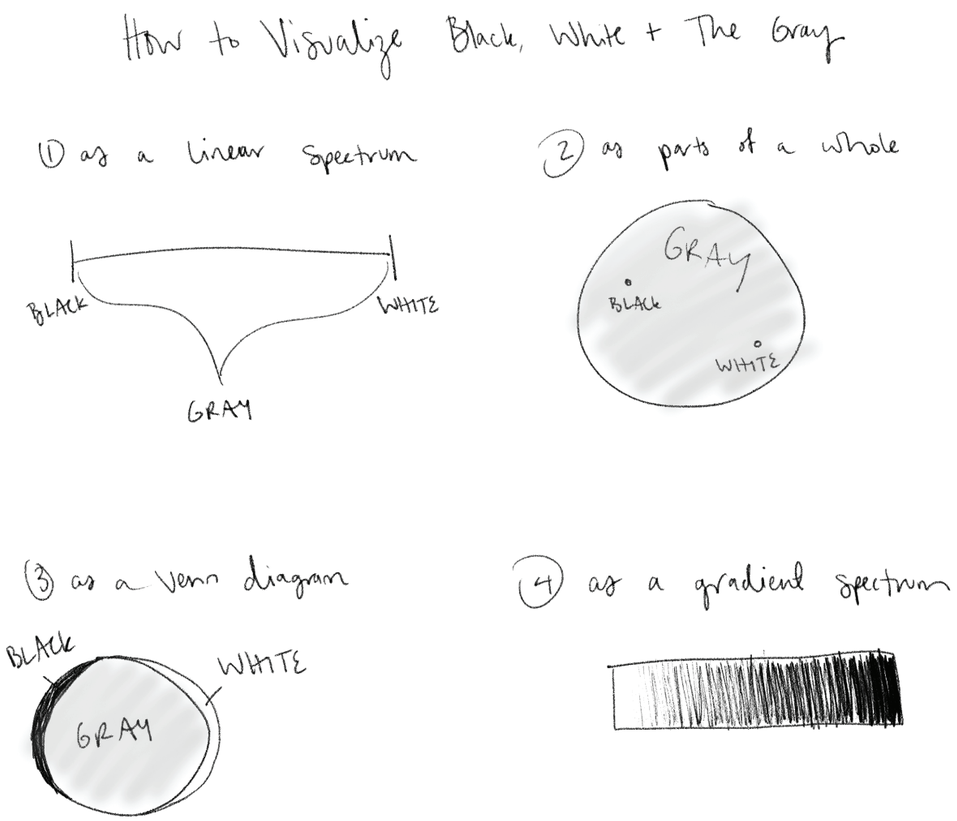


FIGURE Nº 35
EXPANSIVE, DETAIL

Gray Space

As has already been stated, ritual's primary purpose, according to Smith by way of Stephenson, is "the expression of a tension or discrepancy between the haphazardness of daily life and the formalized, repetitive, idealized perfection of ritual." If weaving is a ritual performance, and the realization of a pure binary in the form of a fabric matrix is the actualized ideal, then ritual must acknowledge that this perfection, this ideal, cannot exist outside of its boundary. The tidiness of zeroes and ones, black and white squares, is perfect only in this context and cannot be truly experienced OUTSIDE OF IT. Some rules can only be followed, algebraic formulas executed, in the fixed space of the digital. The everyday exists somewhere within and between these two states: every positive fraction, every tint and shade of gray.



This concept is realized in Gray Space 01, a fibrous, coil-built monolith reaching 6 feet in height. Where the encoded tablets hang flat against a wall, the monolith supports itself, body-like in form and size. Communicative and symbolic by nature, a monolith often serves as a monument, marking a significant or sacred space. Gray Space 01 exists outside of the digital: analogue, manual, haptic. It is in this space that the irregularity of the lived experience is imbued. The monolith holds and contains space for all possibilities, every possible nuance and outcome.

In philosophical terms, this phenomenon is encompassed by the study of dialectics. At its core, a dialectic refers to the existence of opposing points of view and recognizes that both can be simultaneously true. Marsha Linehan, an American psychologist, has pioneered a form of therapy called Dialectical Behavioral Therapy. "A synthesis or integration of opposites," DBT encourages a both/ and approach, in which an individual experiencing conflicting viewpoints acknowledges the tension between the poles and accepts that both can be concurrently true. (quote source)

In my own work, the textual wovens recognize either end of a binary spectrum, two truths, while the monolith represents a dialectic attitude, recognizing and accepting both positions, while also existing as every possibility in-between. Where the weavings are text and theory, the monolith is embodied practice.

FIGURE Nº 36
GRAY SPACE 01

Final Thoughts

Textiles have long served both functional and aesthetic purposes in spaces from the domestic to the formal. Process, material, use, and subject matter are a few of the ways that textiles can be encoded with qualitative data about their makers, geographies, and histories.

The ritualistic act of weaving, an inherently systematic craft with a binary organization, has rendered me changed in many ways. Through interacting with the woven space over the course of a decade, I imposed similar binary systems of thinking upon myself, thus building a black and white worldview and forfeiting my ability to hold space for multiplicity.

The first step to reprogramming my neural systems began with awareness, then a conscious unlearning and remapping, made possible through self-directed neuroplasticity. I practice awareness through the recognition and choosing of antonymic words particularly prevalent in my thought patterns. By translating the words into an 8-bit pixelated language based on binary code, the words themselves become a form of data: strings of information, reduced to black and white squares. I then practice reprogramming, a deconstruction of this reductive outlook, by reentering the woven space with these intentions.

I use the binary system of the woven matrix, combined with the binary language of the digital matrix to make textual, woven tablets encoded with antithetical concepts. Each weaving contains both black and white, thus recognizing either end of a spectrum, while also holding space for both to coexist. To move beyond theory, Gray Space 01 exists as an embodied form of this concept. Body-like in stature, the vessel is a container for and practitioner of holding many truths simultaneously.

In these works, I recognize my role as the coder of binary systems and also my agency in designing, maintaining, and or dismantling these systems. I recognize that my systematic approach to the living of life is one I cannot easily separate myself from, nor do I need to. The true dialectic is accepting that:

I can be both a programmer AND create efficacious systems
I can be both a programmer AND question my own programs
I can be both a programmer AND do the work of deprogramming

The systems are not inherently right or wrong, good or bad. The systems can be all of these, none of these, more than these. I can coexist with the binaries and the multitudes.

The future of this work is vast from both an inner and outer perspective. The opportunity for awareness, change, growth, and acceptance is one we continue to practice throughout our lives. There are many binary patterns I have yet to identify within myself, and exponentially more to design, actualize, and resolve in the woven space. I see a great matrix before me, an expansive map of systems and potentiality, branching out in all directions.

FIGURE Nº 37
ALWAYS (PROGRESS DETAIL)

ENDNOTES

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2 *Barber, E. J. W. Women's Work : The First 20,000 Years : Women, Cloth, and Society in Early Times / Elizabeth Wayland Barber. Norton, 1994.*

3 *Schoeser, Mary. "World Textiles: A Concise History." In World Textiles: A Concise History, 1. Book Collection - Historical Abstracts & America History & Life, 2003.*

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5 *Auther, Elissa. String, Felt, Thread : The Hierarchy of Art and Craft in American Art / Elissa Auther. University of Minnesota Press, 2010.*

6 *West, Nathan. "Why Ritual Matters- a Theoretical Analysis." Medium, July 26, 2019. https://medium.com/@whitelionwest/ritual-is-important-to-you-this-is-why-fa5aac7a82c9.*

7 *Wilson, Monica. "Nyakyusa Ritual and Symbolism." American Anthropologist 56, no. 2 (April 1, 1954): 228–41.*

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