naomi nir

'weaving-with' thesis
theoretical background
paper

tutor:
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pa:cs
2023

weaving architecture
or the architecture of weaving

Human textiles, nowadays not only fabric created by the hands of humans, but woven bio-fabric constructed from yarn made by human cells. These medical textiles could perhaps, one day, be used as functional, woven, tissue-engineered and mechanically strong, transplantable materials.[1] The weaving process has been used, especially in the past few decades, in various fields other than textile production. Svenja Keune, an artist who uses weaving in farming, creates plant mediators and insect propagators through specialised textiles which react and adapt to their environment, facilitating life.[2] Within architecture, weaving has been an inspiration and apparatus for rethinking materiality, structurality, and flexibility of buildings and their components.[3]

Weaving and architecture share some points of departure. The weaver and the architect both transcend the boundaries of their occupation, manifesting ideologies, recounting narratives, and assembling culture. Throughout history various degrees of interweaving between the two art forms and production apparatuses resulted in literal and metaphorical interpretations. How did the simultaneous development of textiles and architecture inform and affect the other? How was their evolution different? What role did gender play in their growth? How can we further speculate the influence and contamination between the two? I suggest exploring the junctures between weaving

1 Magnan et al., 'Human Textiles'.

2 Keune, 'On Textile Farming'.

3 Sauer et al., Architectures of Weaving.

and architecture, as well as their cultural and political significance in various time periods. Might a contemporary re-thinking of architecture through the principles of weaving give rise to novel architectural methodologies? Investigating woven tactility while probing at textual architecture may lead to a more feminist ideology of space-creating. Introducing softness to our harsh urban realities.

Gottfried Semper claimed architecture has developed through four basic elements; the hearth functioning as the centre around which the other three evolved. These were the roof, the enclosure, and the mound. Three built elements protecting the fourth—the hearth, and the hearth's flame from nature's hostility. The hearth, or fireplace, provides light, heat, and a means of cooking food. Semper dubs it "the *moral* element of architecture".[4] In contrast to Semper, the Primitive Hut theory of Marc-Antoine Laugier proclaims the existence of three main elements of architecture—a free-standing column, an entablature or beam, and a pediment.[5] These are a result of the need for shelter from nature through the use of materials provided by nature, rather than the basic communal gathering around a fire. I suggest looking at Laugier's house as a means of separation and isolation, while Semper's as one of connection, an agent of community. Historical evidence suggests that the first enclosures, fences, and pens were woven from tree branches. These, in addition to woven carpets and mats, vastly preceded the masonry wall.[6] The use of carpet as a divider of space continued well after the introduction of more robust, rigid walls. A carpet would be hung on these more structural elements, providing the space with its character, atmosphere, insulation, and reference to tradition. Another method of preserving the origins of the wall was practised by the Assyrians and Egyptians, who used carpentry and weaving imitation in their more tectonic architecture—panellings, granite dressings, and wall paintings among others.

4 Semper, The Four Elements of Architecture and Other Writings, 102.

5 Laugier, Herrmann, and Herrmann, An Essay on Architecture.

6 Semper, The Four Elements of Architecture and Other Writings, 103.

Prior to the formation of permanent societal dwelling clusters such as towns and cities, the need for mobile architecture was prevalent. The use of relatively lightweight, mostly woven materials which could be assembled and disassembled with haste was common, even among societies which would not be described as nomadic per se. The flexibility woven plant-based yarn and materials afford, as well as their varying degrees of insulation, breathability, and adaptability in constructing climatically suitable housing played an important role in the first stages of the development of architecture. In climates where the formation of ancient civilisations occurred, lightweight architecture could be manageable. However, the tectonic and atmospheric qualities more robust materials provide are undeniable. Therefore most ancient cultures began constructing walls out of rigid, heavy materials such as brick and stone. Still, in

the Philippines, *bahay kubo* (fig. 1) are pre-hispanic vernacular houses made of wood, rattan, cane, bamboo, anahaw, nipa, bark, or cogon. These building materials are natural, readily-available, locally grown Filipino flora. *Bahay kubo* are highly adaptive to the Filipino climate—their insulating steep thatched roof protects from both the scorching sun and heavy monsoon rain, pillars of the Filipino climate. A wooden post-and-lintel construction raises the sole indoor space on stilts, forming a sheltered-open space underneath, which is often used for storage or raising farm animals. The bamboo floor slats allow for continuous air movement into the space, providing ventilation without raising the humidity levels. Lifting the house from the ground distances it from the moistness of the earth, and acts as a protective barrier against insects and reptiles. The house's simplicity of design as well as its straightforward construction process eliminates the need for architects and engineers, and communities can build, displace, and rebuild these houses all over the Philippines, a social ritual performed by families and neighbours.[7]

7 Villalon, 'The Philippines'.

The traditional Filipino dwelling follows Laugier's *Primitive Hut Theory* more so than Semper's *Four Elements of Architecture*. Perhaps due to the need for lifting the house above the ground to allow for more air circulation, and protection against sudden floods due to torrential tropical rains. These reasons eliminate the need for the mound and promote the use of columns and beams. However, Semper states that various climates and natural surroundings had different effects on the development of his four elements of architecture, the combinations of

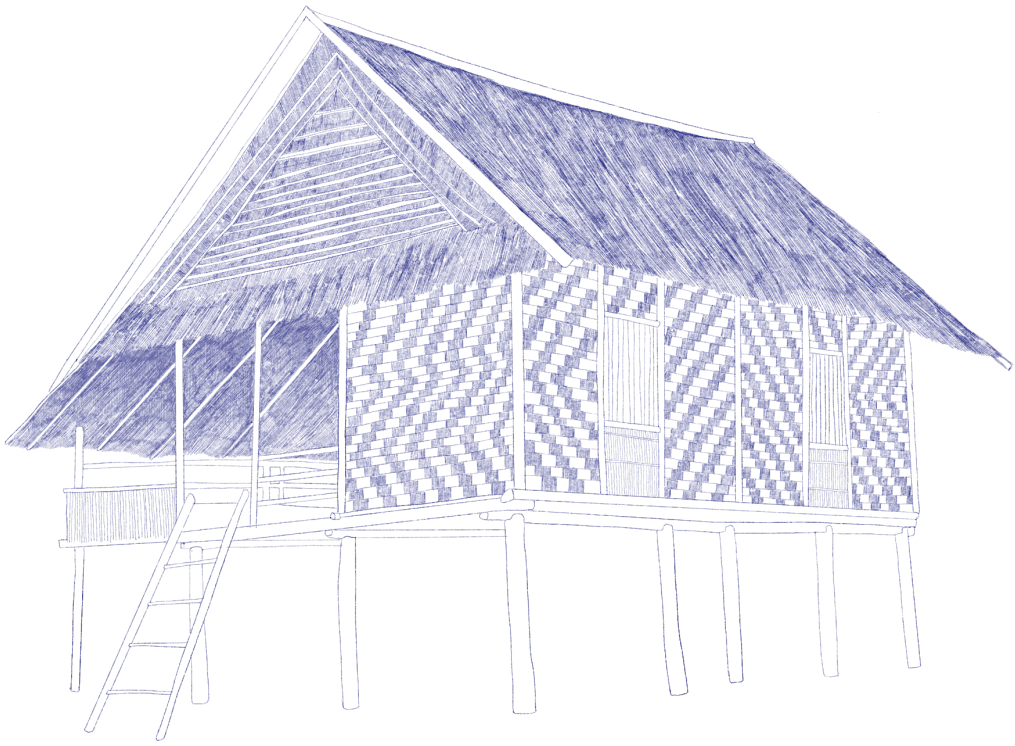

fig. 1
bahay kubo

which change with divergent societies.[8] He may have based his theory on a vernacular Caribbean hut, which shares a few similarities with the Filipino *bahay kubo*. The term *bahay* evolved from the Filipino word for house—*balay*, while *kubo* probably originates from both the Tagalog word *kobo*, which refers to mountain houses, and the Kapampangan *kubu* which is synonymous with words meaning hut, cabin, or lodge.[9] *Bahay kubo* is perhaps the best example of indigenous, vernacular, Filipino architecture. Its lightweight building materials as well as its simple, modular construction aid in its versatility and mobility. These low-cost, readily available materials contribute to the typology's popularity and success, in addition to its capability of withstanding strong typhoons. Other 'floating' hut typologies can be seen around South-east Asia.

Woven bamboo panels, or *amakan*, constitute the house's cladding. They are often modular and are held in place by bamboo battens. The traditional weaving patterns usually consist of diagonals and diamond shapes. The porosity of this type of bamboo weaving facilitates air circulation and helps with balancing pressure during storms. This type of enclosure correlates with Semper's narrative of woven fences transforming into the first walls, becoming a simple, available form of construction.[10] Their many fiscal, environmental, and social advantages preserved these woven elements in the Philippines to this day. Some modern houses utilise the wall panels as more decorative elements, intermingled with more modern architectural elements. The *bahay na bato*, an updated colonial version of the *bahay kubo* which encloses the space on the ground by adding blocks or bricks between the stilts, may still feature *amakan* as a primary wall on the upper floor.

Most *bahay kubo* consist of a single room on the upper floor—an all-purpose space for all members of the household that transforms into differently functioning spaces according to the time of day. At night mats are rolled out and the space morphs into a bedroom, while in the morning the mats are put away and daytime activities take over. The Filipino concept of space greatly affects this design—living communally, surrounded by people at all times. The doors are left unlocked and neighbours or friends are welcome to come in even when the occupants are not home. Solitude is achieved through the use of thin curtains or turning one's back on the room.[11] The open gallery in the front of the house is called a *balkon*; it serves as an anteroom or lounging area. An open gallery at the back of the house is called a batalan; this is where the water jug for bathing is kept and used. Behind the house is where the kitchen is situated. It has a separate roof and window with a *bangguera*—an apparatus for drying dishes. The space underneath the house is called *silong*, as previously mentioned, it is used as a storage space, an enclosure for domestic animals, and sometimes as a burial ground for deceased members of the family.[12]

8 Semper, The Four Elements of Architecture and Other Writings, 110.

9 Lanaria, 'The Cultural Groundwork for a Bahay Kubo Model of Eco-Theology', 5–6.

10 Semper, The Four Elements of Architecture and Other Writings.

11 Lanaria, 'The Cultural Groundwork for a Bahay Kubo Model of Eco-Theology', 8.

12 Lanaria, 7.

Some other examples of woven architecture include Dorze Huts in Ethiopia, traditional Tannaese houses in Vanuatu, and endemic plant-based dwellings in Madagascar. Such woven architectural elements do not fare so well in more temperate climates; in such places woven elements could not be the sole barrier or protective element from the outdoors. Thus they can be seen used as vertical foundations, covered by some moldable material or, more commonly, as additional elements that cover vertical and horizontal surfaces or create flexible separation within spaces.

In Ancient Greece the *polis* was made up of assemblages of the basic living unit—the *oikos*—a word that refers to the household, the family, and the built house itself (fig. 2). "A house shelters a residential social unit, but a Greek house also connoted the household as a concept".[13] Carla Antonaccio, in her gendered studies of the Greek *oikos*, interprets the house's symbolic and conceptual function as a catalyst for gendered behaviour. She compares written, historical documents with archeological findings, prodding the ways in which architecture shaped the lives of women and men and how cultural behaviours were encoded into the *oikos*. According to written sources, the wives of wealthy citizens would stay at home and participate in tasks of feminine industriousness such as spinning and weaving. Women further down the social ladder would often leave the house, in order to sell produce at the *agora* for example. According to literature, gendered-specific spaces of the *oikos* included the *andron*—a formal dining room for men, the *andronitis*—a separate area for men, and *gynaikonitis*—a separate area for women. The rooms of the house are arranged around a central courtyard. The division of space between women and men is achieved through stairs and doors.[14]

13 Antonaccio, 'Architecture and Behavior', 502.

14 Antonaccio, 521–25

Excavations of Greek houses from the 5th and 4th centuries BC identify the segregated *andron* as a characteristically distinguishable room, having a paved or decorated floor and offset doors to accommodate the couches positioned around the room. In contrast, *gynaikeia* are much harder to identify due to

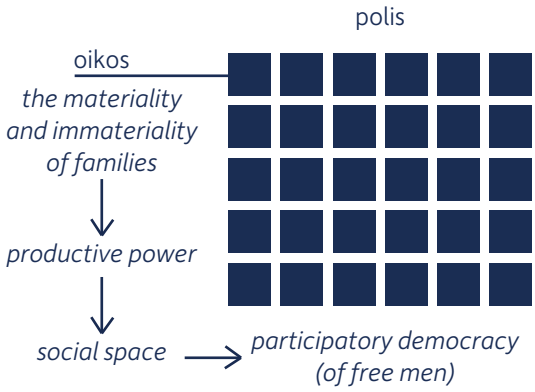

fig. 2
polis-oikos diagram

the portability of domestic utensils and the flexibility of spaces required in cooking or weaving. It may very well be that gynaikonitis was more of a designation of women's social sphere, rather than a fixed physical space.[15] Another explanation of the archeological absence of gynaikonitis is its positioning on the upper floor of the building, which is never preserved, and thus unobservable. "[...]The *gynaikonitis* was a space where women could retreat when male visitors were present. It was fluid, changeable, and permeable. Women's space could expand and contract, but it was not a cloistered seraglio".[16]

15 Antonaccio, 526–28.

16 Antonaccio, 532.

Women's role of maintaining the harmony of the *oikos*, both literally and metaphorically, is depicted in scenes and images of textile production on Athenian vases (fig. 3). Most of these depictions are found in the time period spanning the late 6th and 5th centuries BC. This is when the Atenian democracy gradually developed to be more demos-centred all the while military imperialism grew stronger. Tremendous economic, social, and cultural changes ensued. The *oikos* featured prominently in the art of the time, a testament to its importance as a basic unit of democracy. As the carers of the household, women were illustrated carrying out domestic work, specifically elements of textile production. Scenes did not always describe the actual work being done, and would often highlight implements or props of spinning, weaving, and other processes of fabric production.[17] In Sheramy Bundrick's study of 300 red-figure as well as white-ground Greek vases, a small number of vases can be identified as depicting mythological women such as Penelope, Helen, and Aphrodite. Most vases, however, do not have clearly recognisable mythological references, and instead portray citizen women, and debatably *hetairai*.[18] A part of the supposed evidence that the scenes centre around *hetairai* revolve around illustrations of coin purses held by the men in the scene. Nonetheless, Bundrick ties the money pouches with the new economic system and democratic polis, a proclamation of the bearer's social status as a successful inhabitant of the *polis*. Moreover, the handing over of money by a husband

17 Bundrick, 'The Fabric of the City', 285–86.

18 Hetaira (plural hetairai) in Ancient Greek: a female companion who served as a prostitute, artist, entertainer, and conversationalist.

fig. 3
Attributed to the Amasis Painter, *Terracotta lekythos (oil flask)*

to his wife may point to the economic partnership within the oikos, and women's role of looking after money and household expenses as told in Xenophon's **Oikonomikos**. This gesture displays the respect and trust in the wife's managerial abilities.[19]

19 Bundrick, 'The Fabric of the City', 300–301.

In the 5th century, scenes of women gathering in a domestic setting as they are engaged in textile production became more prevalent. These scenes are composed of women performing the various tasks of fabric production—from spinning to weaving to holding a finished garment, showcasing the wife's responsibility in overseeing the household's goods and belongings. Generally, textile production on Classical Athenian vases evoke the world of the *oikos*. Symbols of domesticity and marriage are abundant—the marriage bed and other motives of nuptial adornment. In addition to money, the husband is often seen contributing to the household with other materials such as wool and meat—ones which the wife can transform into domestically used products.[20]

20 Bundrick, 304–8.

The traditional interpretation of textile-work as a mechanism for the isolation and restriction of women to private quarters has been modified during the last twenty years. Textual and iconographic evidence suggests the fluidity of gender roles in the Athenian family—both genders were considered essential for a well-functioning *oikos* and *polis*. The architecture of the *oikos* points to property protection and privacy from the street rather than gendered segregation. The courtyard was the spatial focus of the house, with most of the rooms on the ground floor opening out to it. Weaving was performed in many spaces, as long as they were well-lit, and connected to the courtyard either by doors or both doors and windows. These were not spaces of seclusion, rather an integral part of the normal flow of life in the *oikos*. This architectural interpretation has a great effect on the reading of weaving and spinning scenes on Greek vases. Instead of a patriarchal sweatshop, women were valued contributors to the *oikos* and the overall harmony (*harmonia*) of both *oikos* and *polis*.[21] However, one must not disregard the important role slave labour had in the upkeep of the household, an entire faction of society which was not allowed to take any part in the democratic city-state.

21 Bundrick, 310–16.

Pier Vittorio Aureli and Maria Shéhérazade Giudici assert that economy is the prerequisite for politics. They use Hannah Arendt's three elements of the *Human Condition*—labour, work, and action to explain the relationship between the place of labour, reproduction, and production— the *oikos*, and the public, political life outside of it. The introverted form of the *oikos* reflects the exclusion of the domestic realm from the public. The previously mentioned central courtyard and its one access point from the street exemplify the *oikos*' function as a distributive machine. A basic condition of the *oikos*, privacy, is mediated by the sole entry to the house, as well as intermediary spaces

between the andron, the space of male hospitality, and the rest of the house. The *oikos* and *polis* function co-dependently, and yet inside the *oikos*, politics is suspended, and its self-sufficiency is paradoxical to its integral role in the *polis*.[22]

22 Aureli and Giudici, 'Familiar Horror', 108–11.

Athens in the 5th century BC mostly functioned as a coin-based economy, however, textiles were seen as part of *oikos*' wealth, translatable through barter for goods or sold for currency. Especially in times of financial distress, women would sell their handmade textiles at the market, according to literary sources. The representation of women surrounded by the woven and various other goods of the oikos showcase her role as the domestic carer as well as her economic role of power in the household. The literal interpretation of the woven motif is joined by a metaphorical one, where fabric extends to the Athenian political system, especially in Greek literature.[23] In the eastern frieze of the Parthenon, the *Panathenaic peplos* is presented to Athena during the Panathenaic festival. This symbolic gift of the *polis* and its commitment to Athena, though historic, also served as a metaphor for the fabric of the city and the Athenian 'family'. Textiles of the *oikos* symbolise self-sufficiency and harmony; the textiles made by the people of Athens express the self-sufficiency and harmony of Athens itself.[24]

23 Bundrick, 'The Fabric of the City', 316–25.

24 Bundrick, 325–27.

Some traditional Persian homes share some similarities with attributes of the Greek *oikos*—women's roles included participation in the family's economy in addition to raising the children and caring for the household in general. The Persian vernacular spaces demonstrate a female domination of territory, where workspaces existed next to living spaces, and in particular, textile production. In the city of Yazd, Iran, male appropriation of the art of weaving transported the practice to factory-scale spaces outside the home. The earthen, vernacular architecture of the city revolves around introvertedness and the houses are built around courtyards. Indeed, the rooms of the house are not named by their function or morphology, but instead by the number of doors they have that lead to the courtyard. A room named *'sedari*, for example, where *se* means three and *dar* means door or window. Domestic workspaces for textile production are called *karkhanehs*, as *kar* means work and *khaneh* home, together *karkhaneh* translates to 'house of work'. These days the term is used for modern factories, and is no longer associated with work spaces in domestic dwellings. Traditionally, *karkhanehs* were located near kitchens and living rooms, though over time their locations shifted to more exposed positions in the home, as weaving became a form of neighbourhood employment. Neighbours participating in textile production would assist and work in each others' spaces.[25]

25 Seddighikhavidak and Jamal, 'Interrelations of Ancestral Textile Handicraft Weaving and Tangible Vernacular Karkhanehs (Workspaces) in the Historic Destination of Yazd, Iran', 3–7.

Yazd, as a central hub of textile production in Iran, embraced the industrial revolution as large-scale production centres for weaving appeared, the first steps of which were the building of

neighbourhood-scaled *kargahs*, or place of work. The early factories drew from earthen, vernacular architecture, employing the use of centralised courtyards as well as traditional building techniques. The transition from kargahs to city-scale factories fostered a vernacular industrial architecture which was quiet and non-polluting. These factories are well integrated into the traditional fabric of the city, and are perceived as seamless in their surrounding residential neighbourhoods. Men dominated the job market, taking up all available work in the factories. Women were displaced from their role as textile producers and were left to spin in their homes, unable to participate in the male workplace. Factories built in the modern districts of the city were influenced by European industrialism and thus became more commercialised. Nowadays, most *karkhanehs* and *kargahs* have been renovated to function in the tourism industry, though some textile production tourism has encouraged the cultural conservation of a small number of traditional workspaces.[26] In contrast, nearly all of the spinning and weaving factories in Belfast, Northern Ireland have been decommissioned. Currently, the Stoker Mills Factory is the sole producer of Irish linen in Belfast.

26 Seddighikhavidak and Jamal, 12–17.

Linen production in Ireland, and more specifically Ulster, has been spread rurally throughout history, existing in tandem with water-powered textile mills and even as a more specialised cottage industry during and after the industrial revolution. Spinning flax and weaving linen was performed in various domestic spaces, with the yarn and linen then sold to local merchants who would then transport the products to distant markets.[27] The Irish vernacular architecture consists of earthen walls built upon a stone dwarf wall, without foundations, and adorned with a thatched roof made of leaves, wild grasses, heathers, straws, and reeds. In Ulster, these types of cabins or farmhouses are joined by timber construction, with clay or brick inlay between the posts in the walls which would then be covered with lime plaster, both inside and out. The lime coating proved successful in protection from water penetration from outside, as well as in absorbing moisture inside the structure and releasing it outside, preventing condensation which kept the interior temperature higher. This vernacular architecture heavily relied on locally available materials.[28] Weaving and spinning was traditionally performed by women, but as the production became a financial endeavour of the household, weaving was taken over by the men, with the women spinning hard to supply the men with yarn. For every weaving man there would be five spinning women. As the act of spinning requires fine motor skills which were passed down from mother to child, women were left to perform the more gentle, soft practise of spinning flax, while men monopolised the weaving. Such role reversal occurred in other parts of Europe where cottage industries of fabric production ruled the

27 Gill, The Rise of the Irish Linen Industry, 1–5.

28 Art and Architecture of Ireland Volume IV, 53–82.

landscape, such as Holland and Belgium.

Early 17th century small-scaled, vernacular mills were based on water, wind, tidal, or animal power. In the second half of the 18th century multi-storey mills became more prevalent, as the textile industry began growing substantially. The demand for larger structures to facilitate the spaces for spinning, finishing processes, and in particular for weaving, catalysed the evolution of building technologies to meet these needs. As women were accustomed to both spinning and weaving, as well as their availability and lower wages, they became the bulk of the workers in the textile industry in Belfast, making up about 50% of those employed in 1907, with children making up a further 25%.[29] Men usually worked more labour intensive or occupied higher status positions such as hacklers or floor managers. Belfast-based Textile mills in the 19th century included a main building of four or five stories as well as single-storey weaving sheds, which accommodate multiple rows of power-looms lit by the shed's north-facing skylights, the main function of their saw-toothed roofs.[30] In addition to the enormous linen industry, Belfast housed a prolific ship-building industry which required even bigger facilities in order to build the gargantuan ships it was known for, as well as long buildings for twisting ropes. The *Belfast Truss* (fig. 3), although its origin uncertain, was used extensively throughout Ireland from about 1866 to the 1930s. Perhaps its wooden lattice configuration borrowed some elements from weaving; its efficient uniformly distributed loading is attributed to its behaviour as a tied arch. The small forces in the lattice members are a result of the thrust line almost coinciding with the top chord alignment. The curved roof was covered by roofing-felts, made of by-products of the gas and textile industries. The maximum span achieved by the Belfast truss was 30m—a major upgrade from the typical 9–18m possible through different types of trusses at the time. Its construction method utilises relative-

29 Purdue, 'Giving Life and Limb for Empire', 222–23.

30 Art and Architecture of Ireland Volume IV, 249–51.

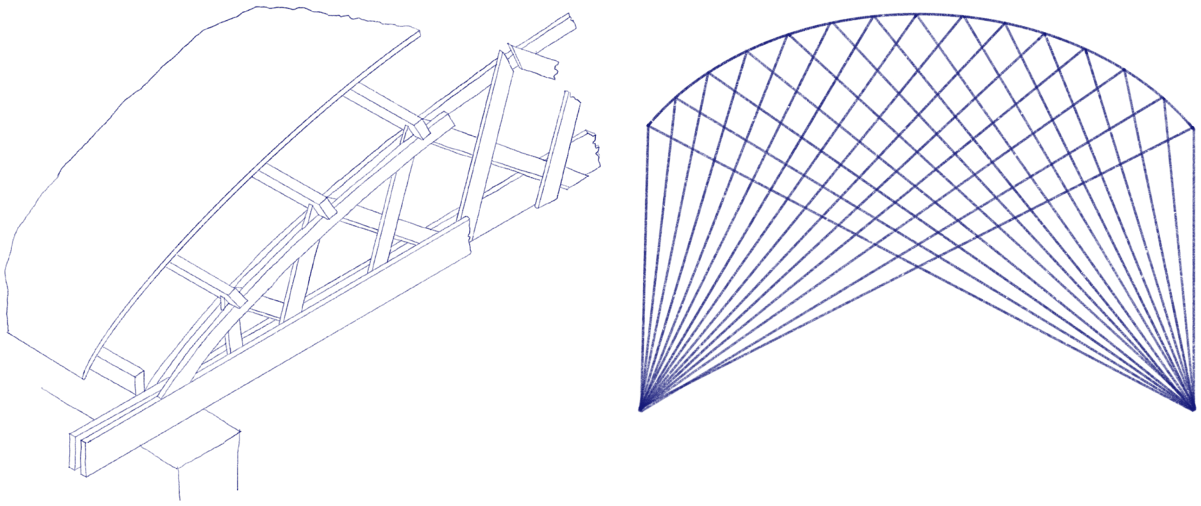

fig. 4
belfast truss and force diagram

ly short timber pieces, ones that can be easily and cheaply acquired as off-cuts from the ship building industry. The simple, swift, on-site building process ensured the success and popularity of the lattice truss.[31] In contemporary architecture, inspirations originating in woven fabric mostly accumulate in engineered building materials that function as free standing elements or flexible constructive materials.[32]

31 Gould, 'A Historical Perspective on the Belfast Truss Roof'.

32 Sauer et al., Architectures of Weaving.

The apparent woven idea for the lattice of the Belfast truss can be debated, though I propose this simple explanation of borrowing from a woven sensibility of stability to generate an industrial, woven architecture. One can draw upon concepts of weaving, both for thinking like a weaver, and for creating. Weaving revolves around simple principles through which an assemblage is formed. Different types of thread bind together to form a materiality with different emergent properties. Even the most elementary woven fabrics require a few facilitators, namely those created by the frame, gravity, or the loom. The warp threads must be held in place somehow. The number of warp threads, their thickness, and the distance between them determine the width of the fabric. The relationship between the warp and weft threads is predetermined. The warp creates a foundation on which the weft threads are woven. They go under and over the warp threads, creating various patterns that correspond to the rhythm of this dance. The patterns created are greatly influenced by the physical ratios between the warp and weft, and the distance between the warp threads as well as the type of material used. These emergent properties point to the fabric as being an assemblage. It may be deconstructed to the original threads and woven again. The autonomous threads retain their identity, together with other threads they create something different.

28 Grosz, Chaos, Territory, Art, 10.

If framing is the first gesture of art, according to Elisabeth Grosz, perhaps weaving can be the second gesture.[33] One which reinforces the territory created on one hand, and brings back some chaos into the frame on the other. In urban settings one may view infrastructure as both the frame on which the city grows as well as interwoven elements which meander over and under one another in the labyrinth that lies beneath the city. The inner workings of the mostly hidden networks which allow for modern life to function must work together, as one cohesive fabric, in order to become facilitators. Other means of weaving appear in our cities, ones which connect and distribute, assimilate different places into a greater whole. Perhaps by using weaving as both a device for connection through physical, literal, and abstract ideas one can reinvigorate a post-industrial city like Belfast, which has lost the characteristics of what made it Belfast to begin with.

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figures

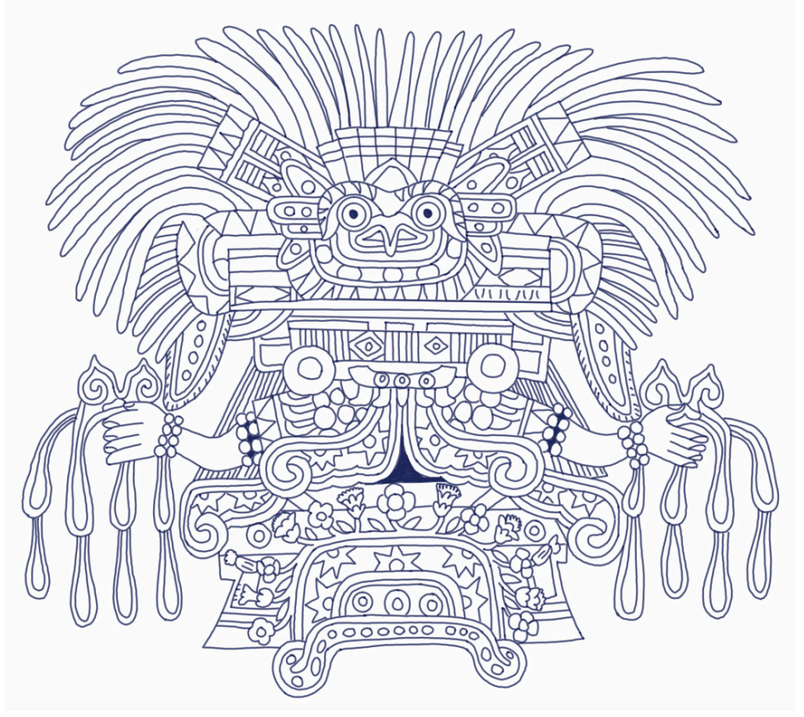
fig. 1— Nir, Naomi. *Bahay kubo*. 2023. Digital. The Royal Danish Academy, Copenhagen.

fig. 2—Nir, Naomi. *Polis-oikos diagram*. 2023. Digital. The Royal Danish Academy, Copenhagen.

fig. 3— Attributed to the Amasis Painter. Terracotta lekythos (oil flask). ca. 550–530 BC. Terracotta; black-figure. The Metropolitan Museum of Art, New York.

fig. 4— Nir, Naomi. *Belfast Truss and Force Diagram*. 2023. Digital. The Royal Danish Academy, Copenhagen.

the witness



the witness
Naomi Nir

Political Architecture : Critical Sustainability
The Royal Danish Academy, Copenhagen

the great goddess,
aztec

Breaking in was easy. All it took was a little jiggle and a pull of the opening in the woven fence and I was in. My dress snagged on the unravelled wire, as I crouched down to enter I heard a tiny rip. It was a warm-ish autumn day, the first after a week of continuous rain. The ground released vapours of heat, the sun having warmed it in the morning. It was now hiding behind the clouds, a typical Belfast day this time of year. As I continued along the overgrown garden I made sure to make as little noise as possible. The big, red-brick factory in front of me has been deserted for years, I think. My whole life I've never seen anyone go in or out. I've heard stories of junkies doing as I just did, entering without permission to get high inside, but I'm sure I'm completely alone today. The factory doors are wide open, inviting me to wander in. On the ground a mixture of rubble, cigarette butts, and moss covered what remains of the original flooring. I wonder how many people walked through this hallway on their way in and out each day. Apparently, when this factory, or mill, was operational, it was the largest in Belfast. Accounting for almost a fifth of the linen produced at the time. The noise gushing out of this place must have been deafening. Now all I can hear are my own faint footsteps, and a bird's wings flutter from time to time. The only inhabitants of this place are non-speaking organisms. The ivy wrapped around deconstructed walls. Mice and bugs in the dilapidated ceilings. Birds nesting in the

ukemochi,
japan

few pieces of roof remaining. And now me. I walked towards the weaving shed, its jagged roof enticing me to come closer. All but one of the skylights are broken, allowing the space to turn into a jungle. One loom is left in the very back, hiding among the weeds. It was more rust than metal, its broken machine parts lying on the ground beside it, peeking from the lush jungle floor. As I brushed it with my hand, flakes of rust fell and dispersed in the air. Coughing, I turned to leave. Turning away, I heard faint voices coming from outside. Very slowly I edged toward the door, trying to make out the conversation. It was a few women, with strange accents. They were arguing about the factory, its tumultuous past. Funny, it sounded like they were passing responsibility from one to the other concerning its closing in the 1930s. So it's been closed for ninety years. Suddenly, I lost my footing and stumbled forward, toward the door. I came into view of the women. Were they women? Now that I could see them, I wasn't sure. They were glowing, and transparent. Like memories from long ago. The one closest to me was tall, with gold armour and a long, flowing gown. The one to her left was beautiful. On her head a snake. Her colourful clothing and jewellery illuminating her darker skin tone. The third was clearly Ancient Egyptian. Clearly, not because I've ever seen a flesh-and-bones Ancient Egyptian. I feel they're recognisable somehow. She was holding a hand loom. As I came into view they all turned towards

ichxel,
mayan

me. Thus began the long discussion of the problem I posed. You see, these three women were, in fact, Goddesses. Ancient Goddess of weaving. They were in town as part of a godly trial concerning the demise of the Belfast linen industry. A trial that has been ongoing since the 1950s. That's how long it takes Gods to decide things. The three representatives sent to Belfast on a fact-finding mission were the Greek Athena, the Mayan Ichxel, and the Egyptian Tayet. In a manner resembling a James Bond villain revealing their evil plan to 007 before they intend to eliminate him, the deities unravelled the story of the trial. It seems that they were in charge of the lives of the people, mostly women, working in the weaving mills in Belfast. It was their apparent inattentiveness that brought down the largest industrial undertaking in the North Irish capital. One that would catalyse the assembly of many other industries around it, leading to the formation of the city of Belfast as it is today. Some courage was mustered on my part, as I began rebutting their apologies for the poor caretaking skills they exhibited during the decline of the linen industry. I assured them the fall of such a robust source of income for many Belfast inhabitants was not caused by them. That it was inevitable. That the rise of standard of living and the price of the so-called 'Western' labour would ultimately push out many of the most prolific industries out of Europe to South-East Asia and the like. Ichxel whispered something to the oth-

mokusa,
russia

ers and in a blinding flash of light the factory was gone. Instead we were standing in a large, wooden room. The ceiling were wooden beams, the walls clad with wood panelling. The glistening hardwood floor below my feet smelled of ash and cherry. It was a sort of courtroom. I realised an assortment of what I assumed were Goddesses from around the earth were all around me. I was introduced as a 2023 witness and was told to go to the right of the room, where the other witnesses were seated. A woman dressed in a long dress with many layers of linen underneath, and another with a 50s hairdo were already there. Soon I was called upon the witness stand, where I retold my analysis of the decline of the Belfast linen industry. This time, however, I continued to present day. I described a new project I was taking part in. One that suddenly sprang up in small nooks and crannies of the city, inhabiting unused spaces between buildings. My neighbours and I helped with the building process. It took us a few months, working on the weekends when the weather wasn't too foul. Slowly accumulating wooden beams and remnants to construct the trusses. Assembling the huge loom. And then at last, when we were done, yarn was delivered from the guys on University Road. They were in charge of repurposing used clothing into yarn for the rest of us. The first few yards of fabric were magnificent. As we cheered and clinked our bottles and cans, our guests applauded. Since then we've been weaving thick fabric

uttu,
mesopotamia

for covering parts of the roof. We have also bartered some of it with other neighbourhoods, acquiring fabric for transparent curtains and furniture which we have begun making. Even when only three people were in charge of the loom, the rest of us would sit below them, enjoying the rhythmic hum of the heddles, the shuttle moving back and forth repeatedly. I was adamant in my story. Weaving has not left Belfast. We were re-learning what was lost. What my ancestors were occupied with in their rural cottages long ago, and my grandmother in the mill along the river.

the spider woman,
navajo