Moving by doing: Gaining sight of and grasping movement

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MOVING BY DOING: GAINING SIGHT OF AND GRASPING MOVEMENT

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ABSTRACT
Although physical activity plays an important role in our lives, it has mainly been addressed from a health perspective. Our research explores a partly blank space by making visible movements present in alternative contexts, in our case - the context of designing and crafting with reclaimed materials. Our research contributes to finding and making visible movements that otherwise go unnoticed and to seeing how they can support to expand the notion of what physical activity is and where it can be found. As part of our result, we propose an explorative method directed to the design research community when in the phase of analyzing and making visible movement in empirical data.

INTRODUCTION
Movement is a fundamental part of life and performed for a myriad of reasons, sometimes conscious and sometimes unconscious (Slotte, et al., 2017; Engel, 2008). Because of its ubiquitous nature, it may be difficult to verbalize and be consciously aware of it outside of a given context where words to discuss movements are known (Studd & Cox, 2019).

In many situations where movements are discussed, there is pre-given structure or language to use when discussing what it means to move and how movements should be performed in that specific context. Movement is measured, judged and may end up as a representation or function of something else than the movement itself (Larsson & Quennerstedt, 2012).

The efforts that have been made to promote and define physical activity have failed to recognize the multifaceted nature of physical activity, reducing it to an activity of energy expenditure and preventing of diseases, without considering the contextual, social and behavioural aspects of physical activity and how it connects to our everyday life experiences (Silva, et al., 2017).

In this paper we share our search for alternative ways and contexts to find, analyse and discuss movement in action. We have selected a context where movement is not explicitly discussed but plays a pivotal role, both as a means to an end but also as part of the experience itself. We turned to analogous practices of repurposing and appropriating of reclaimed materials. Since reclaimed materials often needs to be adjusted and reshaped before it can be used, it provides several opportunities to study movement in action. Our research aims at exploring a gap or a partly blank space by focusing on highlighting movements that usually go unnoticed. Movements that are hidden, out of sight or too mundane to become visible. In search of the unnoticed movement, could finding and making it visible contribute to expanding how movement is analyzed, discussed and framed within design research?

We will mainly use the term movement in this paper. We trace, relate and adhere movement to physical activity but also to the concept of physical literacy and perspectives of movement as discussed within mime corporeal as a way of telling stories.

We will start by sharing our theoretical lense for analysis, followed by the description of our case study participants and their processes of making. To support the analysis of our empirical data, we describe how we make use of our own movement capacity to (de)familiarize and grasp the hidden stories of movement. Finally, we discuss how the use of movement could play a role in supporting designers in their analysis of data as well as making visible the yet unknown movement.

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BACKGROUND

This case-study is presenting design research situated in practice and moves freely between approaches in physical literacy, somaesthetics and mime corporeal. All three have been discussed in relation to phenomenology (Edwards et al., 2017; Ryyнinen, 2021; and Haagenesen, 2014) although somaesthetics is mainly rooted in pragmatism (pragmatist philosophy) where knowing the world is inseparable from agency within it and Mime Corporeal originates from performing arts as a method to augment competence in movement and performative expressions.

Sheets-Johnstone (2011) describes the phenomenological process as making the familiar strange, the wonder of being and aliveness rooted in movement. In the challenge of making the familiar strange lies also a challenge of words or language – as we do not have words that directly can describe the present. The experience of what is present may have to wait – to resonate or bounce around for a while – and allow us to return to it in order to pinpoint or see aspects and find words that can communicate that experience (Sheets-Johnstone, 2017).

With a phenomenological approach to exploring movement - we are aiming at grasping movement to enhance our understanding of movement. We revisit the past to find ways to discuss and learn from the movements somewhat hidden in settings and activities that do not explicit focus on the movement as such. Smith and Lloyd (2021) advocate playfulness in the search for ways of writing about movements in a phenomenological based inquiry.

PHYSICAL LITERACY

Physical literacy is a holistic approach that brings together affective, cognitive, physical and behavioural aspects of physical activity. While literature on physical activity mainly has revolved around the use of motor skills and energy expenditure, physical literacy provides a more holistic perspective on physical activity (Whitehead, 2010).

The embedded capacity of the embodied actions is at the core of physical literacy (Whitehead, 2010) – how we negotiate, get experience and learn to incorporate and develop a dialogue between our capacities, abilities, the material and the context in which the activity takes place (Moran, 2002). The concept, although strongly related to physical activity and physical education (Roert, Ellenbecker, & Kriellaars, 2018) has in recent years moved towards city-planning, sustainability and education beyond physical activity (O’Sullivan, et al., 2020; Pot, et al., 2018). The enhancement of physical literacy argues for a space and structure of patience and openness that allows for the unpredictable to take place (page 16) in Schaeffer et al. (2022). In this case-study we use the concept of physical literacy as an approach to nurture the discussion of movement entangled in a context where movement is not in focus.

MIME CORPOREAL

Etienne Decroux was a French actor and choreographer dedicated to exploring the potential of movements in theatre. Decroux worked during several decades developing corporeal mime (Decroux, 1994). In his teaching Decroux developed several concepts. One of them, chock-resonance is part of nine different corporeal competences that Decroux found of great importance as skills when acting through body-movement (Alaniz, 2013). The chock-resonance is what happens when one performs an active movement (a chock) using a part of the body. This movement meets another part of the body and produces a consequence (a resonance) it refers to a dialogue within the boundaries of a body, a cause-effect, an interplay, a rhythm of movements as in action and counterweight (Camilleri, 2008). We use mime corporeal to inspire our own process of describing the movements found in our participants’ processes of making. We move between describing movement in biomechanical and poetic ways, trying to uncover the hidden narratives.

SOMAESTHETICS

Shusterman introduced somaesthetics in the mid-1990ties as the critical study and meliorative cultivation of the experience and use of the living body (or soma) as the site of sensory appreciation (aesthetics) and performative and creative self-fashioning. It has grown to both a discursive theory and as an embodied practice supporting knowledge of the body and lived somatic experience and performance. It acknowledges that sensorimotor is an active dimension of perception (Shusterman, 2020).

Somaesthetics is well known and used within human computer interaction and interaction design. A field of exploration called Soma Design has been initiated by Höök (Höök, et al., 2018) and used in research, among others, by Tsaknaki, et al. (2021) and Ciolfi Felice, et al. (2021). In our case study, somaesthetics helps us pay attention to our participants’ somaesthetic explorations and the use of their bodies in their processes of making.

RELATED WORK

The conventional way of scrutinizing movement is through testing, measuring and evaluating movement, which reduces movement to representations or functions e.g. fitness levels and motor ability, that go beyond the movement itself (Larsson & Quennerstedt, 2012). A sociocultural approach to understanding movement
(Larsson & Quennerstedt, 2012) points to the importance of contextualizing movement, as well as going beyond the pre-given settings and standards to get hold of what it means to move.

There are different examples of tools for representing and working with movement within the community of design such as: visualisations (Hansen & Morrison, 2014), a set of guiding principles for movement-based interaction (Hummels, Overbeeke, & Klooster, 2007) and a design methodology for movement-based design that aims at defamiliarizing our habitual ways of thinking and perceiving (Loke & Robertson, 2013). Svanes & Barkhuus (2020) present a matrix for providing support for movement-based design using tense (past, present and future) and point-of-view (first, second and third person). In our analyses we make use of their point-of-view and tense.

**METHOD AND ANALYSIS**

In search for movements in a context outside of sport, physical education, dance or performing arts we approached an education in recycle design at ReTuna, in Eskilstuna, Sweden. ReTuna is a mall for second hand items or items re-made of recycled materials. It is also the studio for an educational program in how to make use of recycled materials. At the end of the education there is an individual assignment, a design-project during five weeks and we were invited to develop the design-brief.

An unfinished Tiny house that previously had been part of a museum exhibition (Schaeffer, et al., 2022) which the authors had been part of building was provided to the participants as a design-space for their explorations. The theme for the design-brief focused on: What did the notion of home and the question “What is it to dwell to you?” evoke in them? Their task was to interpret this theme and to design objects for the interior. The selection of ReTuna recycle design education as the focus for this research is related to the case at the museum (Schaeffer, et al., 2022) where one of the insights was that working with reclaimed material provides challenges – as an ongoing negotiation of territories between the maker and the material where a variety of actions and movements are involved.

Out of eleven participants (students) – female and non-binary identities in ages between early 20ties to late 60ties – five cases will here be presented and discussed.

We were on site at the studio at ReTuna in Eskilstuna two days every week. Methods used for generating data were observation, semi-structured interviews, photos, video, field notes and design probes. Contextual semi-structured interviews were performed with all the participants, focusing on their experiences of interacting with different types of reclaimed materials and tools.

The participants were also handed a probe with different tasks and a photo elicitation inspired diary to document their processes and give individual space for reflections on the theme and the process. The probes were collected at the end of the project.

During the initial phase of analysing the rich generated data, we struggled to access the experiential qualities and movement from their descriptions of their processes. The participants would describe what they did to the material, not how they involved their bodies, nor the movements involved in the making. Even though we had encouraged participants to record their movements and experiences of these movements, most often we would get descriptions that it felt good and that they were happy with how the result turned out. Traces of work as soar muscle or muscle fatigue and challenges with handling materials were described – but from the written empirical data – there were no clear traces of movement to the extent that we could get sight of it or grasp it. Looking at the video material, we also struggled to “see” anything of interest, nothing really “caught our eyes” when it came to movement performed by the participants while engaged in different stages of their processes of design.

To break out of this vacuum we started re-enacting and exaggerating participants’ movements and used a big ball (see Figure 1) created by one of the researchers for this purpose. We pasted printed strips of the generated data such as citations, descriptions of themes and activities of their processes, on the ball. We then set the ball rolling and when it stopped, we started to mimic and act out the associated movement of the clip that happened to be on top of the ball. Observing each other, the movements rather directly “came to life” and some movements, as we would exaggerate and repeat them, began to be on top of the ball. Observing each other, the movements rather directly “came to life” and some movements, as we would exaggerate and repeat them, started resembling movements present in sport activities. This gave energy to the analysing process, to through associated movements performed by our own bodies, get sight of movement that seemed hidden. Using our own movement abilities and the sports as a metaphor to (de)familiarise with the participants’ movements, we managed to extract narratives of movement from the generated data.

Encouraged and supported by mime, somaesthetics and physical literacy, that all three emphasize the lived body as a source for exploration and using part of the analytical framework of Svanæs and Barkhuus (2020)
we went through each case with a renewed sight for movements and discovered more movements that previously were hidden from us in the same data using this explorative method. We made use of first-person perspective to make the second- and third-person perspective come alive, moving between the present (observing the movement through video recordings and our own bodies) and the past (accessing memories of participants’ movements and our own experiences of building) see Table 1. Through exaggerated re- enactments we were able to detach the original movement from its context and user and access the 3rd person perspective. The process for analysis through movement and observation was performed for all five cases.

Table 1: Different point-of-views and tense.

<table>
<thead>
<tr>
<th>Point-of-view</th>
<th>Analysis process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st-Me</td>
<td>Accessing memories of how it felt for us to participate in building activities in the past.</td>
</tr>
<tr>
<td></td>
<td>Awareness of how it feels for us to re-enact participants’ movements.</td>
</tr>
<tr>
<td>2nd-You</td>
<td>Empathically observing movement of our participants in action and through video recordings, photos and their descriptions during interview.</td>
</tr>
<tr>
<td></td>
<td>Empathically observing each other re-enacting participants’ movements.</td>
</tr>
<tr>
<td>3rd – He/She/They</td>
<td>(Analytically) observing each other re-enacting participants’ movements through exaggeration.</td>
</tr>
</tbody>
</table>

Here we share the stories from the five selected participants’ processes, our descriptions of the movements involved, the participants reflection of the theme, their process of making and our analysis.

FREEDOM THROUGH WEAVING AND SAILING

“Freedom - I want my home to be a place where I can feel free and safe to be who I am and do what I want. A place to refuel and dream away for a while.”

This participant decided to weave a hammock to represent her theme of floating and being free. We followed her in the process of assembling the loom, preparing the material and weaving her final design. For assembling the loom, she described how she needed to concentrate and keep an eye on her hands while keeping in mind all the steps of the assembling process. She also needed someone to join in as more hands were required to pull the warp through the loom. One person had to hold on to the warp at one end and follow along as the other winded the warp with the ratchet wheel at the other end, see Figure 2.

Figure 2 One is holding the warp (to the left); The other is winding the warp (to the right)

Tying and spreading of the warp threads evenly was crucial for the result and to be able to discern small differences in the unevenness of the threads, a lot of experience in the hands was required see Figure 3.

At some point she needed to climb into the loom. The situation left her with a very strong negative experience of mis-fit with her body having to perform several movements in a space and having problem of reaching the goal. “...it is cramped, and difficult to reach all parts, difficult to stretch the body, not a fun working position”

Meanwhile, the participant continued her process by preparing rags for weaving and decided to use jeans that had been donated to the studio. She tried different methods of cutting the jeans into small strips but decided to go with the scissors. “I found it easier on my hand - I kind of get closer to the material when cutting.”

We noticed a difference in force and size of the movements during the different stages of the transformation of the material. First, small careful movements were performed when cutting and rolling the strips, which then were transformed to a forceful and heavy-handed beating on the material with the loom beater.

WEAVING

After several days’ challenges of preparation, she finally began to weave, something that she had been looking forward to. A repetitive rhythm of activity and rest set in and the movements became more monotonous compared to when she was crawling in and out of the loom. It was a rhythm, an interplay or an interaction between engaging the muscles in force and relaxation – to letting go of the tension. Weaving engaged actively her both hands and feet in the process, with dedicated actions performed by her fingertips and toes. The core seated on the weaving chair had the task of maintaining and mediating balance.

The hands supported each other – feeding the rag in and out, twisting and handing over the material to each other, and pulling the beater together towards her.
After a while she decided to take off her shoes. “I get a better feeling and find the treadles easier.” Observing the feet, we saw how she pinched her toes of the left foot around one of the beams to provide support for the depressing movements of pushing down the treadles with the right foot see Figure 3. The right foot shifted from treadle 1 to 4 and found its way directly between the treadles with balanced speed and precision. The same movements were repeated in a rhythmic pattern: pushing down a treadle, shuffle through the shed, beat, change treadle, beat and over again. The pattern was paused when the rag ran out or when the warp needed to be pulled forward. Slowly, as the participant got familiarised with the rhythm of the movement pattern, the weave started growing in length.

ANALYSIS AND REFLECTION

When acting out and exaggerating some of the movements from this participant’s process, in dialog between the one acting out the movements and the one acting as a spectator, we noticed that certain movements reminded us of sailing. This connecting provided us with a language that we continued to discuss in relation to this specific participant.

The cranking of the rope in sailing resembles the movement she performs to wind the jeans stripes on to the shuttle or when winding the warp. The activity of pulling the warp through where one is cranking and the other holding, reminds us of the collaborative activity of raising a sail. In the activities of weaving, as in sailing, the hands and feet continuously work in a dynamic exchange of balance with the loom or the boat.

Other metaphorical similarities are all the preparatory work involved before one can start sailing or weaving and a multitude of diverse movements involved in the preparation. Added to that, you need to have the equipment and the knowledge before going on a sailing trip or setting up a loom. The constant adjustments of tension of the sails bears similarity to tightening of the warp threads and adjusting the warp as time goes by to be able to continue moving forward. Here, too, it helps in certain moments to team up with others. They work in duo with pulling and yielding. Tension, almost a tug of war - they experience each other's movements and muscles force through the material. With a steady wind, a calmness emerges, and a rhythm sets in where one can just sit down and weave, or sail for a while.

ART IN CONSTANT CHANGE - SMASHING PORCELAIN AND IN BADMINTON

“A home is something changeable, nothing is the same from day to day, things are moved, changed, they break and get repaired. I draw parallels to the ocean. No clam, no wave or seal stay at the same place, they are in constant movement.”

This participant made a mosaic seal to represent her theme. Using different porcelain pieces, the participant talked about the invisible history of the material: “There are hundreds of small porcelain pieces that come from different places that have come together, from different homes, that carry different stories, and traces of different food that has been eaten on the plates.”

She told us about the process of preparing the materials needed. She searched for porcelain items in the area allocated for the studio to collect reclaimed materials and items. "...you can't know what materials will come in... it's a process of waiting, searching and seeking" After collecting and gathering some porcelain items, followed a process of getting the items down to a size and shape that she could make use of in her design. She didn't want too big but not too small pieces; a mix was good. "if the pieces are too big, it will be more difficult to get them to fit together. Especially since my image that I have made is quite detailed."

The process of crushing the porcelain started with placing the items, one by one, on the wooden table, under a towel and then smashing it repeatedly with a hammer, see Figure 4. After smashing with the hammer, she put her hand on the towel and smoothly stroked it around. She later explained that she wanted to feel the broken porcelain through the towel to get a sense of the size and if there were any irregularities of the broken pieces as she wanted smaller, flat pieces.

It wasn’t until she was content with the feeling of the pieces under the towel that she unfolded the towel to do a visual clarification to see if the pieces were the size and shape, she wanted. This process was repeated
several times. “If there were any large pieces that I could feel, I didn’t have to lift up (the towel), but you could feel with your hand if there was something”

The movements of beating with the hammer were precise and forceful. She explained that it was liberating to smash the hammer, as this was normally something you weren’t supposed to do.

She proceeded by picking up the pieces that were at good size and leaving others to continue to divide them into smaller pieces. Wearing protective gloves, it was quite tricky to get hold of and remove the small pieces from the towel, see Figure 4. When she had enough of pieces, she moved on to placing them in a pattern on a platform of wood. It was a puzzle, where she twisted and turned the different pieces to get them to fit together. Still some pieces needed adjustment and she used both hands to generate the force needed to cut the pieces with the pliers.

ANALYSIS AND REFLECTIONS

Examining this participant’s process through our movement inclusive method, the one observing sees a determined calmness and patience present in several of the steps: in the waiting, seeking and finding of the right porcelain items to be used, to the step of putting them together into a pattern. In contrast, when mimicking the smashing-with-the-hammer movement, we notice an explosive, almost angry feeling in our bodies. From the video recordings, we see several examples of how she uses her body in her process e.g. the hand is used to “see” and determine whether to continue smashing with the hammer or to stop.

The movement of smashing with the hammer made us, when re-enacted and exaggerating the movement, think of smashing with a badminton racket or a goalkeeper directing the ball away from the goal, a controlled, precise yet forceful movement. And in between smashing, more light-feathered movements are present.

GETTING TO KNOW THE MATERIAL - HAMMER THROW – HOME ON THE RUN

“I have been thinking about the involuntary nomads, those who have to escape war and climate catastrophes. I thought of a felted cocoon that you can hang up in a tree at night and sleep in. You can crawl into the cocoon, which is like a womb, and then you feel safe.”

This participant described how she intended to make a cocoon out of wool as her theme was safety, but how she changed her theme to the false sense of security due to having difficulties of felting it properly.

The participant explained that she didn’t have a lot of experience working with wool, and that it was different from the material she was used to work with, the clay.


“I am not certain about the material, I don’t know the material, I know the clay, but I have not got to know the material yet. You have to get to know the material”

WASHING, SLINGING AND TEASING

The wool that she used was a kind of wool that generally gets thrown away due to it containing a lot of leaves, small pieces of wood and dirt. She described it as if “time is shrinking” referring to the time-consuming process of preparing it for use.

The process of washing the wool began by placing the wool in a tub filled with water. She spread her fingers to make her hands as big as possible and used them to press down and flatten the wool in repetitive small up-and-down movements to allow the water to filter through and get the dirt out, see Figure 5.

To speed up the drying process the participant centrifuged the wool by hand outside. She started by laying out a thin semi-permeable cloth and placing a pile of rinsed wool at the center of it. She then folded the cloth, grasped the corners, leaving the wool hanging down as if it was in a bag and started swinging clockwise with one arm extended at full length until she picked up a speed (see Figure 6). Reversing the direction of the swinging made the water separate from the wool and land on the grass. She repeated these sections of movements several times until she noticed, or rather heard that the water had come out. “When I do this (change the swing direction) I hear the water hitting the ground a little - but it’s quite approximate”

It was an intensive movement, where the whole body was involved in providing a counterweight to keep the balance while the stretched arm was performing the quick swinging movement. After hand-centrifuging the wool, she moved inside, placed the wool in wire baskets and took a seat in front of it. It contained a myriad of wool tangles in different colours which she took up one by one and started pulling apart.

This was a battle of force between her and the material where she held the material in one hand while the other stretched it apart until it detached from the main pieces (see Figure 6). Sometimes the material was too hard to handle - the knot couldn’t be pulled apart - she needed to give in. She moved on, picked up another piece and continued.
Preparing the wool is a process of several steps that involve transitions between different movements, places and actions. A variety of movements both in size, force and endurance are present, at the same time as the movements of each step are repetitive and monotonous. When playing parts of this participant’s process, we saw a clear resemblance of hammer throw, apart from the momentum. In the repetitive up-and-down movement when washing the wool, through our re-enactment we see similarities of dribbling a basketball. And the battle with teasing made can resemble a mini tug-a-war where sometimes one loses, sometimes one wins.

DYEING, CLIMBING AND NOT LETTING GO OF THE GRIP

This participant decided to design a sun to represent her relationships and what dwelling means to her. She described how she wanted to “...represent warmth and safety in her relationships through a designed collage of different, yellow-coloured pieces”.

She used the technique of natural dyeing in her project because plant dye was something that really had caught her interest. She shared that she also used it as a technique to cover the sometimes-visible history of the reclaimed material. "Many of the sheets that I had, I have washed them, but they were stained, but as long as you dye them again, it won't show, then it won't be disgusting anymore." She used onion skins, turmeric and birch leaves to make different nuances of yellow. She described how she went for a walk in the forest to pick birch leaves and how much she enjoyed doing this as part of her educational task.

Following the participant in the studio, we noticed that there were different processes that started at different times, in parallel or sequential sessions. For example, preparing a dyeing bath required waiting for the colour to extract. The waiting time depends on which material was used. "Unlike turmeric, it takes long time to dye with birch leaves.”

Meanwhile, she prepared the fabric sheet, which was previously washed and ironed. To remove the edges of the sheet, a small cut was made with the scissors. Then she grabbed the two ends with her hands and teared the sheet apart by pulling it (see Figure 7) to each side as far as she could until her arms were fully stretched.

Tearing the sheets was movement intense activity and it produced a loud cracking sound. She did about 3.5 full pull-a-part movements before she needed to cut with scissors to continue. Once the edges were removed, she moved on to cutting the large piece of sheet into smaller pieces, repeating the same pattern: cutting an incision and then pulling apart with her arms. After completing this step, she folded the fabric and tied it according to the pattern she was going to make, and finally, she left it in the dyeing bath overnight.

In the morning, the cloth knots were rinsed one by one, and the water was rhythmically squeezed out of the cloth (Figure 7). Squeezing included many different grips. She grabbed the knot in different ways and constantly moved her hands for new grips. She needed to press, squeeze and twist to get the colour out. When she had rinsed and squeezed each knot a few times, it was time to see the result of the colouring. She explained that seeing the result was very exciting because it wasn’t possible to predict exactly how the result would turn out due to variations in the dyeing material, the pattern, and the quality of the fabric.

“So how can you think this is so much fun. You go like this: ah!” she exclaimed, cutting the last threads that held the cloth knot together. During silence, she held it in her left hand, while rolling it out by extending the right hand up towards the ceiling. She held up the fabric in front of her for a while to get familiar with the material transformed by the dyeing process. To be able to look through the whole piece, she rotated it by letting go of one end with one hand and grabbing another.

Going through many different activities and movements the project of creating the patchwork – the sun – evolved. Some of the steps were familiar to this participant beforehand – and it showed in the way these activities were performed – in the phase and rhythm of the movement. She described the project-work as
exhausting and how it left traces in and on body in the form of pain and fatigue.

ANALYSIS AND REFLECTIONS

Unlike the ready-made materials bought in the stores, the reclaimed materials require a different approach and have a different timeline which is visible in this participant’s processes where much of the work evolves around preparing the fabric for the final patchwork. It is an active waiting, collecting, redoing, adapting, embodied thinking etc. The challenge is to use a variety of movement through different techniques and tools to transform the material to fit the purpose. Discussing and mimicking this participant’s movements, it reminds us of sports-climbing where each rock or cliff is unique in its shape and quality and needs to be addressed accordingly – like her fabrics. As she moves her hands from corner to corner of the cloths without letting go of the grip – we draw similarities to securing in sports climbing where one never completely let go of the grip, keeping at least one hand on the rope while changing the position. Working intensively with her arms: tearing, stretching and reaching out when interacting with the material resembles the movement in climbing. Not being able to completely predict how the fabrics will evolve in the transformation process – in a similar way, the rock evolves by just being and acting in the present moment at the present level of the rock. There are different rhythms of movements in the preparation each piece of fabric, just as in climbing where the preparatory work of security gear and each move involves different rhythms of movements.

LOFT, PARCOUR & PRACTITIONERS’ DANCE

A (hidden) place where you can be undisturbed while still keeping an eye on the surroundings. “This is a childhood dream come true to be able to paint with different types of colours and not pay attention to lines. It felt so good and liberating to be able to go beyond boundaries and just be free and enjoy the colours.” This participant decided to construct a loft. The theme and context gave her the opportunity, a second chance to explore building and painting driven by desire and ideas that didn’t need to adjust to norms and standards involved in construction. She also reflected on the norms of who is holding the tools and giving advice. She shared a memory she had carried from her childhood when she and her sister wanted to just go ahead and build something. They were interrupted by their father “…then dad came and said no, now it must be straight” She also shared a situation that happened while she was working on the loft. A man entered the tiny house and started giving her advice on the construction she had made “… that was a strong reminder that the world out there is not so permissive like it is in here. And that makes me sad.”

BUILDING THE LOFT

“My project started down on the floor and continued to move up, so now I’m up here” This participant made a gradual shift of her location and position in the physical space and because of that, the size of her movements - what she could do and how she could move, changed. While she could prepare the material, saw the planks, move around on the ground, as she continued to move up, the movements got more restricted and cramped due to the small space of the loft. In some postures or positions almost, her entire body was jammed from above and below and there was little room or space for movements. She needed to figure out how to position herself to proceed working. Holding up the tools while laying on her back, lying in a sideways position, sitting with her head tilted on the side, leaving the legs hanging outside of the loft are few examples the positions that she choreographed.

She also lost the stable base of her feet and force that could be generated from them as a support in performing different actions. Instead, she used different parts of her body such as her back, her butt, part of her side as the base for generating the counter pressure needed to support her actions of screwing, hammering, putting up the ceiling, painting and other activities included in her construction. We got at hint of traces of her movements on the loft by looking at her hair after she painted the ceiling see Figure 8.

Figure 8 Two practitioners collaborating on the loft (to the left); Traces of paint reveals participant's movements (to the right)

Other traces of her relation or encounter with the material is seen as bruises, dirty hands or dirty water in the basin when washing her hands and clothes at the end of the day.

PRACTITIONERS’ CHEEK-TO-CHEEK DANCING

Sometimes they were two persons working on the loft – as help was needed. They collaborated in figuring out how to move and act in relation to the space but also in relation to each other - like collaboration in a dance - a dance on the loft instead of a dance on the dancefloor.
They worked in synergy, one was on the loft and the other balancing on a ladder next to it, helping by holding up and pushing, but also acting as guiding “eyes” monitoring the movement during certain situations as the one carrying through the action with the tool was not able to see where she was aiming. At one point they both needed to be on the loft to be able to put up the last wood board. To fit in the tight space, one had to lay down moving the wood board from her feet up and over her head, and hand it over to the other person, cramped in the corner, to push it into place see Figure 8.

**ANALYSIS AND REFLECTIONS**

In this participant’s process we noticed how the becoming structure of the loft and the material not only served as design purpose but also as means, a tool for moving around and grounding herself in the unstable space above the ground. Watching her move around, we see many examples of how the loft forced and challenged her to figure out and ‘choreograph’ alternative ways of moving compared to her ingrained or accustomed movement patterns or repertoire used while working on the ground.

When playing out this project we saw resemblance of couples dancing in the actions when her helper teamed up and co-moved on the loft, embracing each other and the available space. Although a relay race rarely is performed in a cramped area such as this loft, the timing of handling tools and materials between the two working on the loft, make us associate those actions with the handling over a baton in a relay race, a smooth but precisely choreographed action.

**DISCUSSION AND CONCLUSION**

We have shared experiences from a five-week case study exploring movements that the participants performed when working with recycled materials and interior design. Our aim is to bring the often neglected or taken for granted (and therefore invisible) movements and make them visible to further discuss and contribute to understanding of how movement may be described and examined in design research.

Exploring and researching movements in situations where they are not the primary focus of action in the context has been both challenging and rewarding. We generated data through observation, semi-structured interviews, photos, video, field notes and design probes. Although we had lots of material, our efforts to analyze and extract the movement out of our data unfolded the difficulties in taking on such a task.

We describe and discuss movements in the five cases at the backdrop of physical literacy, mime corporeal and somaesthetics. We present a first version of a method adopted from the analytical framework of Svanaes and Barkhuus that makes use of different points-of-views and tense. We used our own movement ability as a creative resource for generating insights by revisiting the 2nd person perspective and gaining a 3rd person perspective of the generated data. The inspiration derives likewise from Hummels, et al. (2017) and *Move to get moved*—to evoke empathy and preserve sharpness of the gaze.

Within physical literacy, Smith & Lloyd (2021) argue that a playful approach may support the ability to grasp perspectives of movement. This approach inspired our mime activity where we exaggerated the movements found in the data (the re-enactments) which allowed us to zoom in on them and make them visible. Besides generating insights, it gave us energy to continue the process of analysis. This can be related to notion of chock-resonance from Decroux (1994) in that the re-enactments that we performed through mime resulted in a resonance in our own bodily experiences that supported our ability to verbalize the experience. Finally, somaesthetics has inspired us to continue explore movement within the design research domain.

Why did we see sports when re-enacting and exaggerating the generated data from the case study? We discussed this vividly and critically. One reflection is that this might be related to our own socio-cultural context where sports have a solid and accepted place in society and are something that many may have direct experience of or through different kinds of media.

We discuss that lived experience, as central concept within phenomenology, embrace movements in its full complexity and variations and that movement in interaction with recycled materials has a story to tell and can be considered as physical activity, although hidden or hard to articulate.

Finally, we suggest that researcher use their own movement capacity when analyzing (getting to know) generated data as a mean to facilitate the search – to defamiliarize with the data to get the grip of and grasp -perspectives of movements and how the movement-stories can be communicated.

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