This book is part of the master thesis project at the Laboratory for Sustainable Architectural Production at Umeå School of Architecture year 2015-206.

This master thesis started with an interest in what takes place while walking, during the in-between, and what affects this movement.

Special interest was put on modern technological developments, especially contemporary information and communication technologies, and how they affect our movement.

Research and experiments ended in a set of conclusions. These were contextualized in London, and informed the development of a urban strategy and building project.

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“[...] I suspect that the mind, like the feet, works at about three miles an hour. If this is so, then modern life is moving faster than the speed of thought, or thoughtfulness.”

Rebecca Solnit, *Wanderlust*, 2000
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INTRODUCTION
I will be investigating walking in the contemporary city and what affects it, e.g. the body and its possibilities, the physical environment and the digital layers permeating it, and the political, social and cultural forces directing our behaviours and what we can and cannot do.

My goal is to find ways of designing spaces that can help us find time for reflection and being more present in the world while we walk in urban environments. The research will start broad to find a plethora of interesting threads and aspects, and later on narrow down into more specific areas. It will culminate in a design project.

The site given for the project is Potters Field, next to the City Hall in London. London, and England, has a history of walking that is part of a strong culture with many branches; the Sunday walk, the city stroll, the rural trespasser, the activist taking back the streets etc. There is a rich contextualized background which could inform, strengthen and shape investigations and design projects into what walking can be.
Opportunities in walking

Through walking, we know the world.

“Only by walking the land, fully engaged and immersed as we read carefully and deeply, can we truly know a place.”

And through walking, we also make sense of the world.

“I can only meditate when I am walking. When I stop, I cease to think; my mind only work with my legs.”

Thus two opportunities in walking can be identified: The thinking - within the mind - and the being - within the world. Walking is an opportunity to do ‘nothing’. Rebecca Solnit tells us that in contemporary western society, it is hard to do nothing, but walking is a way of disguising it as doing something. In it there is freedom from demands of productiveness. Through walking temporary, personal space-time is generated, providing places and moments of relief to reflect. But it also puts our bodies into the world we share. Walking is a natural, unofficial, comfortable way of being in the environment and perceiving what goes on around us.

Both of these aspects are related to doing nothing in particular, in being open to the rhythm of the embodied experience. Here is an open perceptiveness to where our pondering thoughts and our intuitive bodies takes us. It can lead to insights and encounters, and help us find the unknown and the unexpected. At its best, the walk is an open-ended, experimental process. Even if it is a stressful walk between two fixed locations, we can have unforeseen thoughts and experiences.

Tim Ingold argues for life as a continuous line, made through movement, with the concept of wayfaring. “The wayfarer is continually on the move. More strictly, he is his movement.” He never arrives at a full stop; instead, every pause is just a break, a temporary rest on the way. He is not traveling through the world, but in the world. He is perceptive of the world around him and changes his behaviour according to sights, sounds, smells and emotions that engages him. His experience of the world is embodied; his body is what Bourdieu calls a ‘geometer’, that from which the world gets its measure and meaning. In this wayfarer’s line we can find the opportunities identified above.

Walking as wayfarers makes us more present and therefore more engaged in our surroundings. Many thinkers have understood the importance of

2 (Jean-Jacques Rousseau, quoted in Solnit 2001)
3 (Solnit 2001)
4 (Ingold, Up, across and along 2007)
5 (Bordieu 1977)
6 See the writings of e.g. Jan Gehl and Judith Butler
the shared streetscape and its qualities as common space for social cohesion, diversity and even happiness. Being ‘in’ the world, and experiencing how effects of actions reverberate through our cities, can give ecological understandings and perception of consequences of lifestyles.

7 (Gehl 2011)

Walking in the contemporary city

Capitalistic forces have set up efficient infrastructures supporting our consumer culture. Constantly increasing consuming needs constantly increasing production, which in turn needs to be as lucrative and consequently efficient as possible. This is done through logistics, the organization and managing of flows. Together with positivistic, all-encompassing scientific paradigms, this has led to logics of efficiency strongly influencing our thinking. Everything can be calculated and optimized; if not, it is just because we haven’t reached the technological level to do it yet. Speed is paramount because it gives quicker and larger returns on investments. This can now be found in all aspects of life; we want shorter transportation time, faster brains, quicker processors, less time spent waiting etc.

More and more cities become ‘smart’, using a plethora of digital sensors and devices to optimize their performance. Networks between these new technologies are set up, collecting, analysing and predicting data. This both informs and forms the infrastructure; telling us where and how to move, but also producing the spaces which we move in. What is the role of walking in the smart cities of tomorrow?

Transportation today fragments our existence. We spend our lives traveling between places. These specific locations are the stops in which we live, and only when we arrive at them we begin to move around. The unplanned, unproductive
moments that used to exist within the process of travelling are seen as waste and destroyed whenever possible. Buses, trains and aircrafts now offer free Wi-Fi, transforming the ‘wasted’ time into work time. We don’t have time to be in the world anymore, instead we are being shuttled from productive activity to productive activity. Thus we live in fragmentation and become less attached to our shared world. As a corollary the places of our lives are in a sense disconnected.

The consequence of current travel conditions is division. We spend less time in common spaces; we increasingly live in social and cultural ‘fragments’. This disconnection can be anti-democratic (who has access to these ‘fragments’?) and thus has ethical and political consequences. Can walking become a process of stitching life together again?

There are still certain degrees of freedom in movement, ways of moving outside logistics and efficient infrastructure. Our bodies still have the ability to break rules both written and unwritten. But this does not entail a complete break with information and communication technologies (ICT). There is no denying that ICT devices are becoming part of our everyday life. Our world is increasingly permeated by an internet of things, giving our environment digital qualities, always connected.¹ We have to relate to them on a personal scale; they shape how we move and how we perceive the environment around us. Like analogue tools, e.g. eyeglasses and shoes, digital devices now melt together with our body, extending our actions and perceptions further in the world. Just as the city is invaded and made smart by devices, so the body is augmented, with new layers of ICT growing closer and closer, even into our skin. We have to be aware of the consequences. They radically influence our behaviour², but how? What effects do they have on how we move in space?

We risk becoming appendixes to machines; technology becomes the end of humanity instead of an instrument in our hands.³ Galimberti warns us that quantity and quality might inverse⁴; computers already become faster for the sake of being faster, with changes in human life often a fortuitous consequence. We have less and less distance from our technologies; as their limits extend and blur, we might turn into them. Are developments in ICT improving our experience of walking, or robbing us of some of its qualities and opportunities?

¹ (Easterling 2014)
² (Crandall 2011)
³ (Fortunati 2003)
⁴ Galimberti referenced in (Fortunati 2003)
PART I
WALKING IN THE WORLD
The embodied experience of the world

All walking is done by bodies. It seems natural to start with what it means to have a body, and how it is our means of experiencing the world. Through his work, the French philosopher Merleau-Ponty profoundly explored the body in relation to itself, the world, and others. He opposed the dualistic thinking of body contra mind, which underestimate the body, and instead argued for an embodied inherence in the world which is far more fundamental.

Merleau-Ponty writes:
“Either I consider myself as the world inserted into it by my body which is beset with causal relations [...] Or else I try to really understand how sight comes about [...] And seize by reflection a being for whom the object can exist.”

“The body is our general medium for having a world.” This embodied existence means we can never withdraw from the world. We will always exist as a body in it, “affecting and being affected by objects and subjects in the world.” Consequently the body is the permanent structure of perception, as Merleau-Ponty writes: “it is my point of view of the world.”

We are our bodies, and the lived experience of this denies that we can detach the mind from the body. They are inseparable, situated in the world. It is impossible to imagine perceiving the world without a physical entity. For Merleau-Ponty, our body is the measurant of the world; it belongs essentially to it. Through it the world appears to us. This perception is not just functioning organs individually sensing and relaying data. Instead they all inform each other, complement each other, through the “vital and performative human act in which “I” perceive.” Usually measurement refers to quantity, but the human body cannot be understood like this. The complexity of experience is much broader. The envelopment of the senses in our embodied experience prevents us from analysing them completely separated. They are united in our behaviours, in our acts and intentionality through our embodied existence. Hence the body is not a tool in the sense of an object that consciousness perceives, but rather; “consciousness simply is the living body.”

“[..] the omnipresence of our body keeps it from being simply an object in the world.” It cannot be viewed the same way as other objects in the world; it is impossible to see it in the same way we see e.g. the bodies of others. Things are always and only perceived from the perspective of our body; “the presentation of objects in perspective cannot be understood except through the resistance of my body to all

1  (Merleau-Ponty, Phenomenology of Perception 2002)
2  (Tharakan 2011)
3  (Verhage 2008)
4  (Merleau-Ponty, Phenomenology of Perception 2002)
5  (Verhage 2008)
variation of perspective." It is so inherent in our perspective of the world that “the reflection of the body upon itself always miscarries at the last minute." Merleau-Ponty proves this claim of the body being a subject-object with the following example:

“If I touch with my left hand my right hand while it touches an object, the right hand object is not the right hand touching: the first is an intertwining of bones, muscles and flesh bearing down on a point in space, the second traverses space as a rocket in order to discover the exterior object in space”

Here the body is at the same time perceiver and perceived; subject and object constantly alternating, never distinguished. Ultimately, this leads to the body not being an object separated from and used by the mind, but rather the “means of communication with the world.”

Further, we do not passively see something, and then interpret that data. Through the embodied experience there is a more active dimension of perception, that appropriates directly what is seen through some influence, and consequently responsibility. This is often illustrated through Wittgenstein’s famous example of the duck/rabbit, which we can, at will, perceive as one animal or the other. We are never completely disinterested in our perception. This influence is both conscious, as in the above case, and unconscious. There is no way for us to perceive the world outside our body, and outside its abilities. As Merleau-Ponty writes:

“Whether or not I have decided to climb them, these mountains appear high to me, because they exceed my body’s power to take them in its stride [...]

Hence height is not measured simply in its comparable height to me, but also in how I interact with it. Distances are not measured quantitatively in my head; only by attempting to describe it do I order it in geometrical space. For example, my distance to my colleague on the other desk is not bodily measured in exact units, but in the fact that I can reach her, touch her face, see her features. Similarly, I don’t measure my apartment in square meters, but in how I can move in it in relation to my bed, my desk etc. Quantifiable specifications matters less than projective relations; what is important is what I can do, see, touch, hear. We do not catalogue sense data, but inhabit it.

In her essay “The Body as measurant of all: dis-covering the world”, Florentien

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6 (Merleau-Ponty, Phenomenology of Perception 2002)
7 (Merleau-Ponty, The Visible and the Invisible: Followed by Working Notes 1968)
8 (Merleau-Ponty, Phenomenology of Perception 2002)
9 (Reynolds u.d.)
10 (Merleau-Ponty, Phenomenology of Perception 2002)
11 (Kujundzic och Buschert 1994)
Verhage extracts some interesting insights of Merleau-Ponty’s view on the process of perception. When we perceive something, we are “taken out of the centre of the world”. At that point, objects can affect us while we perceive them. “Thus while I “bite” into the object, the object also “bites” into me [...] “Sinking your teeth into each other” means that we partly envelop and puncture the other.” The style and the dimensions of the object has an effect on us as we perceive them. When I reach for an object, I change the movement of my hand, its shape, its pressure, according to the object I perceive. The body “mingles” with the thing, it adds to the dimension of how I perceive the world. This happens in a precognitive way; more or less unconscious of how, the object has altered me, made me respond to it. This is not exclusive to direct physical contact; when walking next to a slanted wall, I change the way I walk, leaning slightly in the same way as it does. When I move in a room with a roof height close to mine, I shrink slightly. When the sun shines bright, I squeeze my eyes. When I smell those I love, I inhale more deeply.

When I perceive another person, a mutual connection arises based on the similarity of our bodies. In the body of the other I see “a familiar way of dealing with the world.” Suddenly, I see myself in the other, with all “my own feelings, intentions, ideas, actions and habits.” In a sense, I do not perceive the other, but rather myself as the other. I measure the body of the other with mine in a way that completely covers it. If it is exhausted and sweaty, breathing heavily, the perception of the exhaustion is not only of the other body but rather I feel it in myself. Thus the measure itself (my body) overshadows the other to be measured (the body of the other). I make the other into me. But at the same time, while I ‘bite’ into the other, the other ‘bites’ back. For example, when speaking we adopt similar ways of talking as our interlocutor. The other shapes us; they add new dimensions to our world.

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12 (Verhage 2008)
13 (Verhage 2008)
14 (Verhage 2008)
Movement and intentionality

Our perception is always based on our intentionality; we cannot perceive or experience anything without having something to direct it against (something to perceive or experience), or without doing it in a specific way.1 And movement is a basic dimension in how we direct ourselves towards the world around us. Movement here adopts a broader meaning; it can be both concrete and abstract; it can be both about actual movement and about orientation towards a possibility.2 It describes dynamic processes. Movement is active engagement with time and space. We are not in time and space, but rather we inhabit it. We don’t perform our movements in emptiness, but rather deeply connected to the world around us. Place and time stems from our activities, our movement. This movement transforms geometrical space and chronological time into lived place and lived time.3 Movement is life. We enter this world moving, and by moving we ground our understanding of the world. “Through movement, we learn not only the contours and qualities of our world, but also the sense of ourselves as inhabiting a world which we can interact to achieve some of our ends and goals.”4 And our most basic, common way of moving, is walking.

1 (Ihde 2001)
2 (Johansson 2013) 165
3 (Johansson 2013)
Walking as experience and performance

Walking is a straightforward activity, an everyday act common to most of us. This is what makes it powerful. Through walking in our environment, we gain access to a real, tangible experience of the world. We are ‘in it’, and objectivistic views quickly fall away, consciously or unconsciously. Our cities are no longer abstract grids or satellite images, but real, experienced and concrete. The intimate scale of walking put ourselves in the world.

As soon as we move, we inhabit and grasp the in-between, we become something that is changing. Change, “obviously the most basic dynamic or physic of our universe”¹, is inherent in movement and grounds our experience of the world as it puts it in relation to earlier experiences. The experience of a walk cannot be abstracted to specific steps; rather it is a continuation, a perpetual becoming. Every step relates to the one before it, builds on it. The walk is a metaphor for process, also applicable for meandering and thinking, and perhaps that is why they go so well together.

The everyday activity of walking is a way of reaching deeper knowledge about our lived world. While moving around, we intuitively perceive the relations between the things around us, be it objects or organisms, using all our senses. We start to relate their location and alignment, and how they exist to each other in space. We feel their tactility, we hear the soundscapes they make, we smell the scents pervading the area around them. These experiences make sense only in their context; only by moving can we appreciate them.

We also start measuring the world around us against ourselves. We begin understanding distances by taking the necessary steps to traverse them. We feel the protective influence of moving under a heavy roof, we feel exposed crossing a large space. We feel the rhythm of the streetlights guiding our way. By walking in the world, we get to know the self.

The encounters we have with our environment through walking is not only about one-sided experience. When we find ourselves walking in a particular place at a particular time, we transform it from abstracted, empty space into lived place. Walking is a way of inhabiting, and inhabiting, dwelling, brings life. Our walks become events in time and space, events that has their own specific rhythms but still interact, influence and are influenced by others. Together they make polyrhythmical fields of interaction². “These synchronized ensembles of distinct practices define the everyday spatio-temporal images of urban places and suggest a temporal rhythmical continuum, which in itself has a significant impact on the character of the place”³. The temporal interactions of walking are key in making place. Imagine a square without

¹ (Jacks, Reimagining Walking: Four Practises 2004)
² (Lefebvre 2004) p.16
³ (Wunderlich 2008)
people passing it; it is dead. Without walking, there is no urban life; walking is the dynamism that enables space to become place.

Through its everydayness, we develop, over time, strong relations to the spaces in which we move. Our environment becomes familiar to us. We become aware of how it is inhabited and lived by other organisms, how the sun moves at different times of day, how weather and seasons affect it. We experience the activities that take place in it. This understanding, forged in our bodily experience, becomes the basis for our intellectual capacities. “Walking is [...] fundamental to human knowledge and understanding about self and the world.” Thus we create a conceptual modelling of the world, and with it an imagination of it and its possibilities. The place performed and experienced by the walk becomes an origin of creative imagination; it is not just “what it is at this moment”, but also holds a potential for future becoming, as we have seen what it is and what it can be. It becomes what Gaston Bachelard calls ‘intelligible place’, unfinished, fleeting place, experienced as a specific place but loaded with projections and possibilities. In this part real, part imaginary, part material, part immaterial place, is the potential of becoming something else.


5 (Jacks, Reimagining Walking: Four Practises 2004)
INTERLUDE I
WALKING EXPERIMENTS
Accompanied by a friend with a camera, I set out exploring the environment surrounding UMA while completely covering my vision. It is a simple common experiment that I've done many times before, but it's effects never ceases to amaze me. At the beginning it is awkward. Suppressing vision makes it hard for us to predict our movement. We rely so much on it to let us know what is coming next. But as I walked along, I gradually became more and more used to it. Direction and relative location became unimportant; what mattered was being there and now, experiencing the surroundings with my other senses, primarily touch but also through sounds and smells. I found myself in the moment.

I didn't care about the people laughing around me, talking to and about me. They seemed lightyears away. Instead, my awareness shifted to my body and its relation to the world around me. As the time I spent blind went on, the textures of the ground became crispier, the scents in the air intensified, the echoes of my footsteps against the buildings became pangs in my ears. But I also felt myself more, my pulse calming down from the initial novelty, my stuttering breathing in the cold winds, the rhythm of my steps measuring the ground slowly.

First I carried a stick to help me predict where to set my foot, and to know what came ahead. It helped me navigate, but also distanced me from the ground. Merleau-Ponty says our instruments eventually melt together with us, extending our bodily perceptions. But this takes time. For a blind man, the stick is a part of him. For me, it was an object enabling me to do certain things but at a loss of experiential intensity. So I threw it away and relied on my hands and feet to tell me what was in front of me. The shoes I was wearing can be seen as an instrument similar to the stick, but long use has incorporated them into my body, and so the distance between me and the ground decreased.
In The Dark

On All Hallows Eve at midnight I found myself walking the dark forests next to Nydala Lake, armed only with courage and a DSLR-camera hanging around my neck. I was inspired by the many horror movies when navigation in complete darkness is done only with support with some device, like a hand-held video camera with night vision. I was after the fear; when we fear, we are in the moment. We tense up, we listen intently, we become perceptive of all the small sounds and shadows around us.

I walked straight into the darkness. One might think it's silly that I was afraid, and maybe I wasn't, but I was for sure not comfortable. I regretted going many times, stopping and thinking I should turn back, but curiosity took the upper hand, and I continued. After fifty steps of trepidation, my pulse increasing notwithstanding of my logical arguments against any danger, I lifted my camera from my chest and snapped one picture, with the flash at full effect. For a few seconds, the forest lit up around me, the darkness receded. I could see the trees and the bushes, their shadows propagating away from me in all directions. I knew where I was, and for an instant the way forward was elucidated. Then the light was gone. I was in darkness again. I looked down at the screen of my camera; I could slightly make out a way forward. I took a deep breath, and continued forward.

Compared to my blind walk, where I and my relation to the world was felt and in focus, here my body disappeared. Only briefly did I note my pulse, my breathing. All attention was directed outwards; I was in survival mode. The creaking of the trees swaying in the wind, the scraping of my feet against the vegetation on the ground. I was so intently feeling the world around me, perceiving it so deeply, that the border between me and my surroundings faded. I simply was there, completely living the situation. Nothing else mattered, nothing else was on my mind. It was exhilarating. I felt deeply alive.
The length of my step

The dimensions of my body influences how I move; they allow me to do certain things, and prevent me from others. I cannot hide in a cupboard, but I will reach the top shelf.

The disabilities of my body influences how I move; they rob me of some potential, but the scars carry wisdom unique to my experiences. I will never enter the ring again, but maybe that is a good thing.
My physical appearance influences how I move; I can enter where you can not, depending on how well I dress. Generalisation and discrimination prohibits some movement, and allow other.

It is said Abraham Lincoln became president because of two things; he was an excellent rider and an elegant dancer. Our lifes are ingrained in our movement; when we walk, we show who we are.
PART II
MOVEMENT AND
MODERN TECHNOLOGIES
Living in an internet of things

Technologies related to communication and information have developed rapidly during the last hundred years. They are now an inherent part of life. An abundance of information and images construct our world, always available. We carry a multitude of tools around with us everywhere in computers and smartphones, all of them connected. These communicating nodes now appear everywhere and in all things from small devices to buildings. They are even inside us, monitoring our heart rate, oxygen levels, stress factors etc. We are living in a library of babel where now most objects can, according to Jordan Crandall, “think, communicate with another, and act in concert [...]”. Together they produce the internet of things that is permeating our contemporary world, becoming part of everyday space as “networks of cognizers”, sensors of different kinds that quantify information.

We are always connected to a digital world of information that is profoundly integrated into our lives, giving our environment digital qualities. This condition remakes our daily lives fundamentally. Technologies redefine established ways of doing things, while introducing new practices and habits, and take part in deciding how we live functionally, socially and politically.

These technologies are elements of what Foucault terms the apparatus, a network of forces which determine us as living beings, affecting our self-construction both psychologically and physically through processes of subjectification. These are, Agamben writes, “a set of practices, bodies of knowledge, measures, and institutions that aim to manage, govern, control, and orient - in a way that purports to be useful - the behaviours, gestures, and thoughts of human beings.”

How do these new technological elements of the apparatus re-produce us in the world, specifically in modes of “movement” or “transportation”?

I will investigate two aspects; on a societal scale through of logistics and infrastructure, and in an individual sense through how our bodies ‘melt’ together with technology, affecting our movement and perception of our environment at a personal scale. They interlaced and inform each other. These can be seen as a top-down and a bottom-up view.

1 (Crandall 2011)
2 (Gros richness 1977)
3 (Agamben 2009)
Logistics and tracking

Capitalistic forces have set up efficient infrastructures supporting our consumer culture. Constantly increasing consuming needs constantly increasing production, which in turn needs to be as lucrative and consequently efficient as possible. This is done through logistics, the organization and managing of flows. Together with positivistic, all-encompassing scientific paradigms, this has led to logics of efficiency strongly influencing our thinking. Everything can be calculated and optimized; if not, it is just because we haven't reached the technological level to do it yet. Speed is paramount because it gives quicker and larger returns on investments. This can now be found in all aspects of life; we want shorter transportation time, faster brains, quicker processors, less time spent waiting etc.

More and more cities become ‘smart’, using a plethora of digital sensors and devices to optimize their performance. This both informs and forms the infrastructure; telling us where and how to move, but also producing the spaces which we move in. This network of new technologies, the internet of things, constantly monitors our movements, calculating it, analysing it. This is done by quantifying it, normalizing it into measurable information that we can somehow take advantage of. Movement is occupied by technologies giving us, according to Crandall, the “illusion of control, the ability to catalyse events and shape outcomes. [...] It optimizes it, and infuses it with the potential to be predicted.” Moving phenomena are identified and classified in order to extrapolate their future positions. As we are all moving, we can all be defined by our location and movements and thus become “subjects to calculative measures.”

Crandall continues: “These analytical procedures infiltrate social life, construct the perception of social events, define priorities and relevancies, and frame approaches. All actors in the world are locatable, yet subordinated to movement, and thus fundamentally able to be tracked, modified, transported.”

“As tracking has become elevated into a condition, dissolving into space, behaviour, and all manner of social practices, “being” is interpolated into a cluster of calculation, materiality, and behaviour -- performatively enacted between pattern and act. This performative relation must be considered with the true extent of tracking’s anticipatory orientation in mind. Ultimately, tracking seeks to characterize an actor not in terms of what it is doing, but what it will do.”

The efficiency technology offer is meant to free us. By going the shortest route in the quickest way from A to B, we can be more productive, and thus giving us more free time. In reality, the opposite is happening.

1 (Crandall 2011)
2 (Crandall 2011)
3 (Crandall 2011)
4 (Crandall 2011)
By striving for ideal transportation, we destroy precious time for doing nothing that used to exist in traveling. The world moves faster and faster, and we have to keep up. Spending time unproductively is no longer allowed. The unplanned moments that used to exist within the process of moving are destroyed whenever possible. We don't have time to be in the world, instead we are being shuttled from productive activity to productive activity, from our beds to our work, to the shop and our friend's house, to the restaurant and the gym. Solnit writes:

“[...] the rhetoric of efficiency around these technologies suggest that what cannot be quantified cannot be valued - that that vast array of pleasures which fall into the category of doing nothing in particular, of wool-gathering, cloud-gazing, wandering, window-shopping, are nothing but voids to be filled by something more definite, more productive, or faster paced.”

There is no denying that ICT devices are becoming part of our everyday life. We have to relate to them on a personal scale; they shape how we move and how we perceive the environment around us. Like analogue tools, e.g. eyeglasses and shoes, digital devices now melt together with our body, extending our actions and perceptions further in the world. Just as the city is invaded and made smart by devices, so the body is augmented, with new layers of ICT growing closer and closer.

6 (Crandall 2011)
Body schema and extended bodies

Merleau-Ponty’s idea of perception is as mentioned above not based on a dichotomy between an objective and a subjective, body and mind, but somewhere in-between. To structure perception in this openness, he argues that the body seeks stability through ‘habituality’, or skilful copying.1 This refers to how we mainly through imitation produce body schema around what we do and can do with our body, which “gives our life the form of generality and prolongs our personal acts into stable dispositions”2. As Reynolds explain3, these come through embodied activity; actions and perceptions are habitual with their root in imitation and responsiveness within environments and communities. Through it we get ‘praktognosia’, practical knowledge, which is the primacy of the body having and understanding its world without “having to make use of … ‘symbolic’ or ‘objectifying’ functions.”4

Merleau-Ponty describes practical, embodied intelligence thus: “We said earlier that it is the body which “understands” in the acquisition of habituality. This way of putting it will appear absurd, if understanding is subsuming a sense of datum under an idea, and if the body is an object. But the phenomenon of habituality is just what prompts us to revise our notion of “understand” and our notion of the body. To understand is to experience harmony between what we aim at and what is given, between the intention and the performance – and the body is our anchorage in the world.”5

The body schema then works as a reference point, which “establishes a stable perceptual background against which I perceive and respond to changes and movements in my environment.”6 It is the integrated skills and capacities we have from our precognitive familiarity with ourselves and the world.7 They are ready to anticipate and incorporate a world prior to the application of concepts and the formation of thoughts and judgements. These precognitive skills make the ‘habituality’ mentioned above.

While the body is the general instrument of comprehension, its possibilities through body schema are not a closed system. Merleau-Ponty explains this through two layers of the body: the habitual body (corps habituel) and the body at this moment (corps actuel).8 The ‘habitual body’ is in a sense what we think we can do at a given moment. It is continuously updated in relation to the ‘body at this moment’, which

1 (Reynolds u.d.)
2 (Merleau-Ponty, Phenomenology of Perception 2002)
3 (Reynolds u.d.)
4 (Merleau-Ponty, Phenomenology of Perception 2002)
5 (Merleau-Ponty, Phenomenology of Perception 2002)
6 (Carman 1999)
7 (Carman 1999)
8 (Merleau-Ponty, Phenomenology of Perception 2002)
changes our body schema. For example, when we grow up, we grow taller, which changes our perception of our body, our environment and what actions are possible for us. Further, if we lose a body part, suddenly our actions become limited. Over time, we adapt to this condition, and thus our body schema is restructured. This means that there is “no original measure, no intrinsic human scale constitutive of authentic humanity”.

The habitual body is not separated from objects biologically outside it. It can be, and is, extended through things in the world we incorporate by way of concern. Heidegger writes on intentionality: “[…] that with which our everyday dealings proximally dwell is not the tools themselves […] On the contrary, that with which we concern ourselves is primarily the work”. When using a tool, we are not constantly thinking about what it is and what it can do, we simply use it. Our human activity is extended into tools with a dynamic being, capable of ‘melting’ together with us through action. When I type on my keyboard, I do not look at the keys before every stroke. Rather, its spatiality has merged with me; the key-bank space has been incorporated into my bodily space. Another example; when I cut the tomatoes, I don’t think about the knife. Through habit it is part of me; with my left hand I move the tomatoes from the box to the cutting board, with the right hand I slice them rapidly without reflection. My mind can even be on something completely else; my habitual body is extended, the knife is part of my hand and me.

Similarly, Merleau-Ponty writes: “The blind man’s stick has ceased to be an object for him, and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and active radius of touch, and providing a parallel to sight. In the exploration of things, the length of the stick does not enter expressly as a middle term: the blind man is rather aware of it through the position of objects than the position of objects through it. The position of things is immediately given through the extent of the reach which carries to it, which comprises besides the arm’s own reach the stick’s range of action […] The points in space do not stand out as objective positions in relation to the objective position occupied by our body; they mark, in our vicinity, the varying range of our aims and our gestures. To get used to a hat, a car or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our own body.”

Thus the range of the body is re-established within its ‘economy’. Technological instruments of a wide array (glasses, shoes, bikes, wheelchairs etc.) can either melt completely into the body, or accommodate it in various ways and thus extending its

9 (Kujundzic och Buschert 1994)
10 (Heidegger 1962)
11 (Merleau-Ponty, Phenomenology of Perception 2002)
12 (Kujundzic och Buschert 1994)
area of sensitivity and action.

Reynolds provides an additional example: “[...] of the practical and embodied intelligence that Merleau-Ponty insistently points us towards, is the driving of a car. We are intimately aware of how a particular car’s gearshift needs to be treated, its ability to turn, accelerate, brake etc., and importantly, also the dimensions of the vehicle. [...] many drivers [...] ‘know’ (in the sense of a harmony between aim and intention) what the result of the various movement of the steering wheel are likely to induce. The car is absorbed into our body schema with almost the same precision that we have regarding our own spatiality. It becomes an “area of sensitivity” which extends “the scope and active radius of the touch” and rather than thinking about the car, it is more accurate to suggest that we think from the point of view of the car, and consequently also perceive our environment in a different way.”

13 (Reynolds u.d.)

The habitual body is not permanent but rather situational. Take for example the surgeon who performs some operation using a camera device to see where in the body his tools currently are, and what they are doing. Through habit the camera has become an extension of his vision; he does not continually reflect upon it’s cognitively; the camera extends his perception in that given situation. Dissolved into the surgeon’s body, it becomes part of his sensitivity to the world at this specific moment; seconds later he has left it behind. Through these examples we can see a notion of ‘sensitive instrumentality’, a melting together of subject and object. The instruments are not distanced from but rather part of the embodied existence. We are all of us dependent on these objects; our mutual integration with them seem limitless. In Merleau-Ponty’s view, “human existence remains dominant, pervasive and open-ended.” Instruments are in themselves no threat to our humanity. Merleau-Ponty was writing this in 1945. 70 years later, Fortunati et al. writes: “The human body is undergoing the same processes today that nature once underwent. In fact, whereas initially technology turned to nature, today it has become very interested in the human body [...] Communication technologies have extended the boundaries of the body, increasing the capacity to transmit information. Technology has progressively grown closer to our bodies, approaching through first clothing, then synthetic clothing fibres, and finally ‘smart fabrics’, wearable computers, and communicative machines embedded [...] into the body.”

14 (Fortunati 2003)

As modern technology advances, it becomes “increasingly advanced at simulating, stimulating, supplementing, and altering the human body with a host of genetic, chemical, sensory, and
many other techniques.”15 This makes Verhage’s observation relevant: “[Merleau-Ponty’s phenomenology] can be read as a phenomenology of violence. The violence of perception [...] [biting into] cannibalism [...] Introjection [...] Retaliation [...] In this image of mutual encroachment the intersubjective encounter has become particularly fleshy and violent. [...] the intersubjective relationship can have both ethical and violent consequences as it can be a mutual transformative sculpting or a violent breaking into another’s flesh.”16

Every melting together with an instrument has a consequence, and we must be vigilant in political and ethical terms, to understand exactly what we gain and what we give up. Our humanity might be at risk. We risk becoming appendices to machines; technology becomes the end of humanity instead of an instrument in our hands.17 Galimberti warns us that quantity and quality might inverse; computers already become faster for the sake of being faster, with changes in human life often a fortuitous consequence. We have less and less distance from our technologies; as their limits extend and blur, we might turn into them.

ICT will always shape our movement in spaces, whether deconstructing and objectifying us from afar, or becoming part of environment that surrounds us, or if it has melted together to extents or completely with our embodied experience. This cannot be perceived as ethically ‘good’ or ‘bad’ in itself. Rather, it demands investigations into how different instruments alter our environment and our perception of it, in what way they extend our habitual body, and what effects this has on our life.

Every application of technology in design projects runs this risk. It demands understanding of both the potentials and the dangers. Is it something meaningful, contributing to the design in a conducive manner, or is it just a novelty, applied for its own sake? Are we taking a political or ethical decision, or are we blindly rushing along under a paradigm of scientific development without stopping and thinking about how our lives actually are, and how we want them to be?

15 Kujundzic och Buschert 1994
16 Verhage 2008
17 Fortunati 2003
18 Galimberti referenced in Fortunati 2003
INTERLUDE II
WALKING WITH TECHNOLOGY
Some of the technological devices I walked with - a GoPro camera with a mount, a Galvanic Skin Receptor for measuring emotional responses, handsfree for recording sound, and a smartphone for recording GPS data etc.
After 9/11, much of Lower Manhattan was revitalized. One of the sites that underwent most change was the Fulton Center, one of the busiest transport nodes in New York. Here, six subway stations and 12 subway lines meet. ARUP was hired to do the project, and began with intensely studying the situation. They focused on connections, stating that “There was a clear need for better access channels, and more of them.” Through the use of software, they mapped almost 50,000 people travelling through the station, and used the results to make design decisions. New direct connection connected the lines, the corridors became wider, and they made new mezzanines to separate passengers. The users were seen as packages to be transported, and the station as an efficient system. The effects of their design were less crowding, a reduction in loading and unloading delays, and improved security.

Considering New York City has the residents spending most time commuting in all of US (around 6h per week per person), these improvements were welcomed by many. Unfortunately, the experience of the traveler is rarely mentioned, only in brief superficial terms like the novelty of an intricate (and extremely expensive) steel and glass structure allowing light to enter deep into the building. If the residents of New York City spend so much time on the tube, one can question why this is not seen as an opportunity to at the same time try to make that experience worth their time. Additionally, the great success the ARUP publication raves about is contradicted on many places on the web, who claims that though “some corridors were straightened or rearranged, and some escalators have replaced stairways [...] the problematic transfer challenges remain”.

The complete control of movement through this design strives to eliminate all the random factors, all opportunities for random encounters and meetings that are unplanned and ‘wasteful’. Thus it isolates us from the world around us; we are just ‘in transit’, speeding along to our next destination. Data has been used as a tool of suppression, abstracting and controlling the complexity of life into something manageable, predictable, and ultimately, in the worst case scenarios, devoid of life.
Constant flow through the hub. Only the cops and some admirers of the structure are stationary. There is no overlapping of Ingoldian lines; everybody is going their way as quickly as possible.

The transportation is quick and efficient; you travel as a solitary package, isolated from the world around you, with your eyes on the phone and music in your ears. There is no need to interact or to be aware of your surroundings; the perfection of the design leads you where you want to go without any demands on you.
A Virtual Walk

Dear Esther walks the line between being a video game and an art project. Developed as a research project at the University of Portsmouth in 2008 and later remastered and rereleased in 2012, it gained many positive reviews from a gaming community much more used to faster-paced, more interactive games.

The game has no puzzles or tasks, nothing to defeat and no score kept. The only thing to do is to walk the landscape a far-away island in the Hebrides. As you explore the island, the main protagonist reads aloud letters written to his dead wife. They are cryptic, sometimes pretentiously abstruse, but they narrate in an unchronological order the past events of his life, and the unfolding story it tells balances the gradual exploration of the island; its muddy shores; narrow, rocky mountain paths; and deep, illuminated caves.

I played through the game twice (it takes around one hour to complete), first with a friend and speakers, and the second time alone with headphones, on a large 17” inch screen. The character is controlled using four keys (forward, back, left, right) and the mouse to move the head.

Alone, the game has far greater effect. Eventually, when giving all focus to the experience, I came closer to the character, his emotions and above all his experience of the environment. It is beautifully designed by artist Robert Briscoe, who skilfully uses the natural elements of the island and man-made objects to make the straight-forward journey from beginning to end an experience of unpredictable exploration through a landscape laid out with twists and turns, aha-moments, awe of natural wonders, curiosity with old remnants, confusion with obscure, unknown relics etc. The powerful effect of contrasting space is very much felt; combined with audio changes it becomes convincing and immersive.

Experience of the walk is here reduced to primarily two senses; the visual and the aural. Still it manages to convey some of the experience of a walk. The aural supports the immersion of the experience through music and ambient sounds. The visual gives
scale (feeling protected, small, narrow) and orientation (choices, what is possible, knowing where we are, direction). It also conveys a basic sense of texture. It mainly works through composition of image-based experiences. (contrast, focus). I will present how it is used with a few examples.
I. The Radio Tower

Through the game, a radio tower in the distance becomes the beacon guiding the journey. It is visible in a number of locations, often with the path traversed leading towards it. Already at the start it establishes itself as a point of reference. Soon it disappears, as cliffs tower over the player, as shrubs and bushes cover the view, but it always returns as a clear marker of the way forward. Its presence organizes the experiences, provides a datum for the progression further and further around the island.

II. The House, the Passage, the Light at the End of the Tunnel

When the Radio Tower disappears, often new elements take its place, temporary guiding the player forward. They do not overtake with the Radio Tower, as its dominating presence nullifies their effect, but as temporary markers they offer some organization, some guidance, a way forward. As the player draws close to them, suddenly a new orientation springs into view, taking the place of the former marker, continuing the path forward.

III. Posts, Stairs and Candles

Making sense and direction of the landscape around is often made with man-made elements supporting the path at various locations. This is posts marking a path through the wilderness, a stair hewn in the precarious mountain path, a few candles lighting a path. They reinforce direction and gives clues to what has been happening on the Island. They structure the natural environment, ordering it and taming the wild nature into comprehensible elements.

IV. Contrasting Scale

Changes in scale make powerful experiences of space. One chapter of the game takes place entirely underground; tight, claustrophobic spaces suddenly open up into massive caves. The threshold between the two becomes most important. They are most effective when there is an anticipation, a suspense, not only a sudden surprise. When we suspect the transition, we glimpse it or hear the echoes in the distance. The transition is successful when we know something is coming, even though we are not sure exactly what.
Mapping Umeå

A site in London was given for the project, but I had no way of visiting it during the first part of the project. Thus a walk in some ways comparable to the London site was chosen, as a case study and preparatory laboration before the study trip. I decided to explore a digital mapping of the walk. The route was chosen to include a diversity of places similar to those in London.

The walk was around 2.5 km long and cyclical. It started and stopped at my desk at UMA. It was walked numerous times during different days and hours, states of mind and environmental conditions.

Of my walks, eight were chosen as of interest. I developed a systematic and considerable mapping system to juxtapose the data from the walks. Still, the information did not aim at being comprehensive or even coherent. It became a mix of objective data and subjective observation and speculation, trying to investigate deeply, to push borders of understanding, and to find threads that could be further developed.
**Walk overview**

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>Distance</th>
<th>Duration</th>
<th>AVG Speed</th>
<th>Max Speed</th>
<th>Rain</th>
<th>Temperature</th>
<th>Humidity</th>
<th>Weather</th>
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<tbody>
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<td>Thu 11:05</td>
<td>3 km</td>
<td>26:59s</td>
<td>5.5 km/h</td>
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</tr>
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<td>Clear</td>
</tr>
<tr>
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<td>11.5 km/h</td>
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<td>Clear</td>
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<td>11.5 km/h</td>
<td>0</td>
<td>0°C</td>
<td>50%</td>
<td>Clear</td>
</tr>
<tr>
<td>Fri 18:17</td>
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<td>0°C</td>
<td>50%</td>
<td>Clear</td>
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<tr>
<td>Fri 15:16</td>
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<td>50%</td>
<td>Clear</td>
</tr>
<tr>
<td>Sat 14:32</td>
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<td>5.5 km/h</td>
<td>11.5 km/h</td>
<td>0</td>
<td>0°C</td>
<td>50%</td>
<td>Clear</td>
</tr>
</tbody>
</table>
By lining up the gathered data, patterns formed and relationships became visible. I deconstructed my walk, and from the pieces new perspectives emerged. The recording devices were able to contort space and time itself, and offered me a viewpoint external to my embodied experience of the world. Certainly not objective, as I deliberately chose what to gather and what to represent, but definitely at some length removed from the embodied walk itself.
The exact positioning and timing of my movement from the city was recorded using the GPS function in my phone. Reading the data, I observed that I moved faster at some places, and slower in others. When I moved through pleasant areas, like the riverfront park, or in crowded areas, like the mall, I slowed my step. Conversely, the rough, empty areas speeded my pace.

A map of my circular walk was deformed into a straight line, and then transformed by how much time I spent walking through each and every space. The new map represents a new perspective on the city we move through.
The sound of crushing ice is awe inspiring. It is so silent yet so hard. Surface; heels more audible. Look across river. Traffic noises. Smoke from firewood. The streetlights. I always imagine them having a personality; I can see it in their shape. Some are shy, some are tired, some are proud, some are defiant. They generate a rhythm, a structure, through their distance and the light they cast.

I had already walked past them. We end up standing in some very weak. The infrastructural design forces interaction or at least proximity between us walkers, for example waiting ... or sharing the same revolving door. I sense a bond here, a sense of togetherness, even though it is very weak.
Moods can be contagious. This particular lady’s sigh made me sentimental. Maybe I should be slapped, but I couldn’t help thinking about her; what worries her so much?

Habitually I enter my keycode while covering the camera. Some movements are ingrained so deep we do never reflect on them. Which ones do I overlook?
Places and non-places, elevation and soundscapes
Overlaying sightlines
PART III
RESEARCH CONCLUSIONS
Mystery and risk

Through my research I found many interesting ways technology can affect our movement. It can expand our senses, and help us deconstruct the reality around us to show us that which is hidden or obstructed. It gives us some control over time and place, it allows us to see things partly from the outside of human experience.

But there are also many negative effects of technology. It can suppress our senses; GPS makes us less worried about how to go somewhere and therefore we read the space around us less. Headphones keeps sounds away, we cannot hear the world around us. The experiences of the world that we have while walking are more and more suppressed by efficient thinking. Through my investigations I noticed that walking with technology removed some of the experience of the world. Technology gives us safety and lucidity by erasing risk and mystery from our world, either as an all-too-powerful safeguard, by eliminating our perception of it, or by completely displacing it outside our lived world.

The things I appreciated the most form my walks were the rudimentary blind walks and dark walks. They were full of mystery and risk, which had strong satisfactory effects. This kind of perceptive walking are being continuously erased from the urban environments. In London specifically, new guidelines have been released for street design. 1. While they provide a strong overall framework for designing a more pedestrian-friendly city, they also seriously hamper designers creatively rethinking what walking can be in the contemporary city, by limiting materials, dimensions and aesthetics in favour of order, efficiency and control. I do not dispute the right of every citizen to feel safe and have ease of access throughout their daily life, nor do I think that this well-made and thoughtful report will have negative effects on the modern city. But I do believe there has to be space for the other walking experiences as well. There has to be layers within the city that offers other experiences, where risk and mystery are allowed. These layers might fill the needs of the kind of walking that is deeply ingrained in the English; the strong desire to temporarily get away, to experience the idea of nature.

Risk and mystery are concepts I borrow from the patterns of biophilic design, developed by Browning et. al. with support from Terrapin Bright Green LLC.2 They are patterns that fall under the Nature of Space category. Mystery is defined as “the promise of more information achieved through partially obscured views or other sensory devices that entice the individual to travel deeper into the environment.”. A mysterious place is full of anticipation; it has facets that are not completely known, but hinted at. Thus they entice us to move forward, to quell our curiosity. Browning et al. claim that the Mystery pattern comes from our

1. (TFL 2016)  
2. (Browning 2014)
needs of understanding and exploring our environments. A place with good mystery should not make us fearful, or surprise us in unpleasant ways. Anticipation is key; we need to have an idea of what to expect, but it should not be completely revealed to us at first glance. As mystery is eliminated by time and routine exposure, one should work with conditions and activities that are changing and mutable; natural processes spring to mind as strong players. Showing portions of structures, hinting at what might come next, making the basic organization of space clear but still containing unknown and hidden spaces, obscuring parts visually but making us aware of them through other senses etc. might create fruitful places of mystery. When we want to go further, to move around the corner to see what is next, we are in such a place. This exploration, if done well, supports stress reduction and cognitive restoration. Compared to the other patterns of biophilic design, mystery is very much based in movement and thoughtful observation about the environment; much like Ingold’s wayfarer.

Risk is defined as “an identifiable threat coupled with a reliable safeguard.” Such a space is exhilarating, loaded with tense emotions and thoughts, but safeguards exists which prevents it from descending into fear and real danger. This pattern might at first glance be only for daredevils, but elements of risk motivates all of us to different extents, whether its bungee jumping, peeking where we should not, or playing a game of cards. Risk comes from perception of a near and present danger. If the pattern is to be successful, however, this danger should be tamed and to a certain extent under control. The roots of this pattern is our childhood; experiences of risk releases dopamine and pleasure responses intended to develop our risk assessment. As adults, risk situations support our general motivation, memory, problem solving and fight-or-flight responses (as long as they do not go too far, in which case they start having negative effects.). Working architecturally with the pattern can mean including spaces where risks are noticeable, but still providing some kind of safety mechanisms. For example, this might be high balconies or catwalks, cantilevers, transparent floors etc. It might have risks of falling and hurting oneself or getting wet. The degree of risk is suitable to different types of people.

Thus mystery and risk became my main focus as I went to London to start exploring the site. I was intent on finding opportunities for these kind of places and experiences within an urban setting.
INTERLUDE III
A BRIEF HISTORY OF
ENGLISH WALKING
We walk in the same conditions.

In English wilderness the commoner and the nobleman greets each other.

Walking unites us.
The doctors of the 16th century stressed the importance of daily walking to preserve health. Galleries made this exercise possible at all times, indoors. The long galleries became popular in Elizabethan country houses, often located on the upper floor along an entire wing. Here walking was exercised and guests entertained; only later were paintings displayed.

The way out to nature came through the garden. From the medieval ages onward, the aristocracy was mostly interested in society, not in nature. Thus gardens were not for walking, but a place to sit and talk, listen to music, smell flowers and eat fruits. It was surrounded by high walls and controlled by keepers.

As the world grew safer, the aristocratic residences became palaces rather than fortresses. The walls around the garden came down, and in the Renaissance garden walks could be made, and the Baroque gardens grew even larger. One of the major functions of the aristocratic garden was escape; escape into contemplation, private conversation, courtship.

The English estates traditionally consisted of the park, the garden and the house. The parks were originally areas for hunting, and later became a buffer zone between agriculture and aristocracy. The paths and bushes of the gardens were first forced into pure geometrical forms, imposing architectural control on organic nature. But in the 18th century, with the Romantic movement, the English garden became...
more naturalistic. As the world became less dangerous, the walls separating the garden from the park vanished, and they started to become less distinctly separate.

The English started to develop a taste for nature, opposed to the artificial gardens of their nemesis, the French. The landscape garden became a symbol for English liberty. Whereas the French formal garden was based on a single axial view from the estate, the English was designed to be experienced through a walk; it was cinematic instead of pictorial. As the garden became more and more indistinguishable from the surrounding landscape, it became unnecessary: it could be found rather than made. William Kent, a famous landscape architect, proclaimed that he had “leapt the fence and saw all nature was a garden.”

Up until this point travel by foot had been dangerous. The roads were in bad condition and highwaymen and footpads plagued them. Those who could afford it travelled by horse, coach, carriage or wagon, sometimes with weapons; walking meant you were either poor or a robber.

At the end of the 18th century, the roads had become safer, and that the boundaries of the aristocratic garden melted into the world was proof of this. Soon, intellectuals started walking. As roads were improving in both quality and safety, walking became a respectable mode of travel. As poets and writers wrote about their love for walking in nature, the ideas spread from aristocracy to the lower classes. Walking for leisure became part of English culture.
The birth of the walking club

Access to land always was a class war. Already when the Normans conquered England in 1066, huge parks were set aside for deer hunting, with trespassers severely punished. Usually, there were two types of public access; the commons, areas which were privately owned land that locals could use to gather wood or graze animals, and the rights-of-way, footpaths which everybody had the rights to travel on regardless of whose land it was. During the 18th century, enclosure acts accelerated, diminishing the commons in favor of single landowners farming large areas. In the 19th century the upper-class increasingly sequestered public land, formerly supporting many people, for hunting game.

With industrialization, people moved into the cities to work. The lives there were bleak and dirty, dense, squalid, polluted. People wanted to get out of the cities whenever they could, and now the conflict over land stopped being about economic survival and started being about psychic survival. More and more people spent their free time walking. But at the same time, more and more of the traditional rights-of-way were closed to them. In 1815 an act was passed giving magistrates the power to close any path they deemed unnecessary. During these land wars, the administration of Britain was in the hand of landowners.

In 1824 the first walking club, Association for the Protection of Ancient Footpaths, was formed near York. Later, Commons, Open Spaces and Footpath Preservation Society started in 1865, still active today as Open
Space Society. They won a hard-fought battle for Epping Forest near London; in 1793 it was 9000 acres, in 1848 7000 acres, in 1858 it was fenced off. In protest to harsh sentences to trespassers, up to six thousand people came there as a protest. Eventually, the public regained access.

As more and more private landowners closed off their land, the number of walking clubs grew. In 1931, they formed the National Council of Ramblers Federation. After some unsuccessful attempts, the National Parks and Access to the Countryside Act was passed, and changed the rules. It meant all councils were required to map all the rights-of-way in their jurisdiction, and once mapped, were considered definite. The burden was put on the landowner to prove that a right-of-way didn’t exist, instead of the walker to prove that one did. Since then, the rights-of-way has appeared on the Ordnance Survey maps, accessible to everyone.

The National Council of Ramblers Federation, later Ramblers Association and today Ramblers, is still fighting for public access to the landscape. In 2000 they managed to pass an act giving people of Britain the right to roam, that is, the freedom to walk on open countryside away from paths. They recently rebranded themselves after surveys showed that the demographic were shifting from an elderly, retired, white middle class walking in the countryside towards younger, more ethnically diverse membership for whom walking was increasingly an urban activity.
PART IV
POTTERS FIELD
To truly understand a place, we must walk it.

Eventually it spills its secrets.

Every walk teaches us more.
The earlier walk-maps of Umeå taught me a lot about what is important and what is not. When doing these walk-map of Potters Field, subjective experiences played a bigger part. By walking to the site from six different destinations, I started to develop the site and its relation to the city. Through the lived experience of its idiosyncracies, I got to know it. I began to understand it. The numerous walks became the basis for the following design.
PERCEIVED AREAS

S1 GARDEN
S2 CAFÉ GREENSPACE
S3 PARK PLATFORM
S4 RIVERSIDE PLATFORM
S5 FOREHORE WALL

BORDERS

B1 TOOLEY ST
B2 MORE LONDON
B3 CITY HALL
B4 THAMES
B5 TOWER BRIDGE
B6 MORE LONDON RESIDENTAL

AXONOMETRIC
PERCEIVED AREAS

S1 GARDEN
S2 CAFÉ GREENSPACE
S3 PARK PLATFORM
S4 RIVERSIDE PLATFORM
S5 FOREHORE WALL

BORDERS
B1 TOOLEY ST
B2 MORE LONDON
B3 CITY HALL
B4 THAMES
B5 TOWER BRIDGE
B6 MORE LONDON RESIDENTIAL

ACTIVITIES

- CHAIR GROUPS
- BENCHES
- PLATFORM SEATING

E1 EVENT AREA
E2 BUSKER
E3 ICE CREAM TRUCK
E4 ROSITA MANDAR
E5 CAFÉ
E6 SELFIE AREA

GROUND MATERIAL

- CONCRETE TILES
- RUBBER COMPOSITE 1
- RUBBER COMPOSITE 2
- GRASS
- PLANTS

FLOWS AND ACCESS POINTS

A1 PARK ENTRANCE
A2 MORE LONDON ENTRANCE
A3 RIVERSIDE WEST ENTRANCE
A4 TOWER BRIDGE STAIR
A5 SHADWELL BRIDGE TUNNEL

- LOW TRAFFIC
- MEDIUM TRAFFIC
- HIGH TRAFFIC
- EXTREME TRAFFIC
PART V
MUDLARKING THE THAMES
In the Thames foreshore, I found the mystery I was looking for.

Hidden in the mud are secrets. Every object has a story.

The risk of the looming tide thrills me.
# Thames - a tidal river

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**Legend:**
- **T:** Time
- **H:** Height
- **M:** Moon
- **A:** Apogee
- **P:** Perigee
- **U:** Upper
- **L:** Lower
- **W:** Water
- **R:** River
The foreshore around Potters field, and its access points
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On our side of the wall, order and cleanliness reigns. On the other side is muddy chaos, disparity, heterogenous conditions ever changing. All that separates us from this completely different reality is a 600mm thick wall of concrete and brick.
Bringing the Thames into London

The river thames runs through the heart of London, but is far separated from the lives and hearts of the Londoners. Redesigning river walls to allow greater biodiversity will give foothold to the life of the thames and invite it into the lives in London.

Renewing natural romanticism

A green riverbank full of life would provide recreational spaces much sought for in a buzy urban environment. As the built increasingly erases the natural, new forms of nature must arise. The vegetation can also increase air quality.

Checking the water at the edge

The Thames is increasingly flooding. The walls along the edge of the river have the potential to absorb much rainfall and reduce flooding. It may also filter the water going into the river from pollution, which otherwise runs straight down on impermeable surfaces.
1. Physical habitat structure
   - size and dimensions of wall
   - wall inclination
   - construction material
   - wall age

2. Nutritional resources
   - amount of sediment & humus delivered
   - wall moisture
   - decomposing wall materials

3. Microclimate
   - exposure to wind, sun and rain
   - wall management (heated etc.)
   - local urban climate

4. Accessibility
   - accessibility to species dispersal vectors
   - location relative to source habitats

5. Disturbances
   - cleaning and maintenance
   - pollution
   - extreme weather conditions
Steel wall

Concrete and brick wall with wood piling

Concrete wall with complexity
Concrete and brick wall with wood

Concrete wall

Brick wall with wood
Potential species in river walls

- Golden Samphire
- Gypsywort
- Enteromorpha Intestinalis
- Hemlock
- Cladonia
- Hydrosera Triquetra
- Bladderwrack
- Lecanora
Purple Loosestrife
Silvergreen Bryum
Ragworm
Rhizoclonium
Cockle
Laugurus
Hydrolapathum
Freshwater Shrimp
Copepod
Sea Barley
Two-Lipped Door Snail
Tubifex Worms
In its current shape, the foreshore is a fragmented space in the city. At numerous places, it is interrupted by quays extending into the river, or by deeper water dug to allow boats to anchor. This fragmentation hinders free movement throughout the foreshore and makes it a more dangerous space, as you can easily be cut off by the rising tide, drenched or drowned.

Descending into the foreshore can be done without much support, but getting the most out of the experience requires tools, equipment and know-how not in possession of the average person. Thus it is difficult to experience all the foreshore has to offer.

To connect the divided foreshore, I propose a series of interventions at strategic locations. They would be simple stairs, fitting into the current system, but also providing new experiences. Additionally to making movement along the foreshore as fluent as possible, they would also serve to ease the access to the foreshore and give it visibility and some footing in the ‘clean’ city on the other side of the wall.
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Support in very rudimentary and functional terms will increase the potential of usage and experiences in the foreshore. This support must be accessible and easy to use, and open to everybody.

The Thames Explorer Club will have equipment rental (boots, raincoats, travel etc.) as well as educational functions to spread knowledge about the foreshore. There will also be galleries, both curated by archeologists and open-source, providing the users to display what they have found.

If the foreshore were to be stitched together, this would allow for longer, safer walks along it. Thus the potential of using the foreshore would extend from specialized, informed users to larger groups of people. It would consolidate the now isolated pieces into a strong layer in the urban fabric with new potentials, opportunities and experiences.
Invisible

The interventions will include an easily accessible platform, allowing quick ascent and descent upon the wall. It should integrate into the boardwalk fluently, and allow views down onto the foreshore.

While walking the boardwalk, the foreshore is not easy to see. This is because of the quay wall being designed with a height and depth that prevents casually looking over it. The wall functions as flooding protection and can thus itself not be opened up.

Inaccessible

Many access points are permanently locked or locked during certain times of the day. Further, many require climbing over walls and fences, and walking down far too steep or high steps.

The new stairs will be easy to descend, provide sure footing. The angle will be within regulations, there will be a handrail and sufficient height and depth.

Contained

In addition to allowing descent and ascent to and from the foreshore, the intervention will also invite the foreshore up onto land. The materials used will catch water and allow vegetation to grow.

The wall is a clean break with the dirt below. The experience of the muddy foreshore is completely separated from the nice, organized boardwalk above.

Dangerous

The foreshore is dangerous because of the tides; they may catch you off-guard and trap you below, cutting off the exits, and drenching or even drowning the unsuspecting stroller.

The intervention will contain information about what to be aware of before descending. It will have information about tide times, where to be careful, diseases etc.

Unknown

The current conditions hides the foreshore completely behind the quay wall. There is no sign of anything happening on the other side, and consequently many are not aware of the world just on the other side of the wall.

Vertical elements will help make the interventions visible. They will rise above the wall, showing that something is happening on the other side. They will mark the interventions in the city and help identify them.

Intervention; a new kind of river stair
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The foreshore, while obscure and slightly dangerous, is still regularly walked by some people. In the following pages, I document three walks I went on. They have varying degree of contact with the muddy mess. They were vital for developing an idea of what the foreshore is and can be used for. The uses became the basis upon which a programmatic design response was sketched.
Beachcombing with Fiona

Beachcombing is a special walk arranged by walk.com. Guided by tidal archeologist Fiona, people from all walks of life gently stroll the foreshore looking for treasures to take home.
Knee-deep at Deptford Creek

At low tide, Deptford Creek Education Center outfits its visitors with waders and sticks and leads an assemblage of curious eyes, feets and hands down into the mud, to experience a creek full of life.
Mudlarking with the Mud God

A day with Steve Brooker is a day well spent. The mudlark par excellence knows everything about anything you can find down there, and teaches you how to ‘read’ the foreshore like an expert.
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Beachcombing the Foreshore
Mudlarking with the Mud God
Knee-Deep at Deptford Creek

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A programmatic design response
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</thead>
<tbody>
<tr>
<td>the Passer-by</td>
<td>The passer-by is anybody who passes through the site. The passer-by is nowhere shown but can be anywhere, and will not plan his stop before arriving.</td>
<td>Will walk a straight, unobstructed path. May not stop at all. May not have breakdowns.</td>
<td>walking past site</td>
</tr>
<tr>
<td>the Striker</td>
<td>A person who happens to be going past something.</td>
<td>Needs clear direction in transit and may wander.</td>
<td></td>
</tr>
<tr>
<td>the Beachcomber</td>
<td>The beachcomber has come to the site for the specific act of picking up things on the foreshore. He or she is more likely to choose the site, chosen by interest.</td>
<td>Will wander. Will ignore or take many spatial conditions for granted.</td>
<td></td>
</tr>
<tr>
<td>the Mudlark</td>
<td>A person who searches along beaches looking for things.</td>
<td>Systematically curious, hands-on, engaged.</td>
<td></td>
</tr>
<tr>
<td>the Archeologist</td>
<td>The archeologist works at the site. They are there to do research, spending their time doing research, reading the information on the foreshore, and planning the beachcomber's actions.</td>
<td>Will spend entire days at the club.</td>
<td></td>
</tr>
<tr>
<td>the Thames</td>
<td>An ancient river god. Somewhat unpredictable.</td>
<td>Needs to be caustioned at certain areas. Needs to be stopped at certain areas.</td>
<td></td>
</tr>
<tr>
<td>the Stroller</td>
<td>A person who walks along beaches.</td>
<td>Curious, investigative, whimsical, directionless.</td>
<td></td>
</tr>
<tr>
<td>the Mudlark</td>
<td>A member of the Society of Mudlarks. They are around fifty experienced foreshore walkers. Of the fifty, twenty are very active on the foreshore, while the rest go sometimes but not much of their free time on the foreshore. Of the fifty, twenty are very active on the foreshore, while the rest go sometimes but not much of their free time on the foreshore.</td>
<td>Deliberate, focused, straight.</td>
<td></td>
</tr>
<tr>
<td>the Stroller</td>
<td>A person who walks along beaches.</td>
<td>Routinely habitual, dutiful, knowledge-able, work at hand.</td>
<td></td>
</tr>
<tr>
<td>the Archeologist</td>
<td>The archeologist works at the club. They are there to do research, spending their time doing research, reading the information on the foreshore, and planning the beachcomber's actions.</td>
<td>Will work however the interests of the site will allow. Will not rely on breakdowns.</td>
<td></td>
</tr>
<tr>
<td>the Thames</td>
<td>An ancient river god. Somewhat unpredictable.</td>
<td>Somewhat unpredictable, ranging, wet, might go wild.</td>
<td></td>
</tr>
</tbody>
</table>

### Walking Lines

- **Visiting the Gallery**: visiting gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Visiting the Cafeteria**: visiting info center, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Visiting the Cafe**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Information Desk**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Mudlarker's Club**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Archeologist Office**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Observation Platform**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Pools and walkways**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Gathering Point**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Washing and Drying**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Changing Facilities**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
- **Classroom**: visiting the gallery, exploring the foreshore, learning and preparing, cleaning and chilling.
PART VI
THAMES EXPLORER CLUB
About the project

The following pages contain some of the drawings produced to present the master thesis design project, adapted from poster to book format.

Following my investigations into the foreshore and its uses, it became clear to me that a building was an important and interesting part of a design response. Its functionality would fill many needs for descending into the foreshore; learning, exhibiting, cleaning etc.

Additionally, the project became an experiment in how to work with dirtyness and the tidal conditions of the Thames, to create a space rich in mystery and risk. Thus the design gesture has it roots in bringing the river into the building. The river wall seemingly penetrates the boardwalk, allowing both people to walk down into the foreshore and, through the same spaces, the river and its life to move into Potters Field and the building itself.

Through the design, it was important to be respectful to the current park and its conditions. The site strategy tries to reshape the park without disturbing what already happens there. Instead it strives to strengthen these activities, while adding many more new experiences that make use of current flows and situations.
I. the canal

carefully slices through the park, introducing the river and separating an open space into more controlled, defined areas.

II. the recesses

generates tidal conditions through a pool flooded twice daily, while enhancing current event space through a square integrated in the landscape.
I. the canal carefully slices through the park, introducing the river and separating an open space into more controlled, defined areas.

II. the recesses generates tidal conditions through a pool flooded twice daily, while enhancing current event space through a square integrated in the landscape.

III. the terasse invites visitors down to the river, while bringing the river back up into the building site.

IV. the building ties the elements together, strengthening them, without dominating the site.
Ground floor 1:500
Second floor 1 :500
Elevation N 1:500
Elevation S 1 :500
Elevation E 1:500
Short section 1: 1:500
Pool section 1:500
Passing the building; sensing the mystery within.
From bottom to top; the inside of the shaft.
PART VII

BIBLIOGRAPHY


Nathalie Cohen, Gutav Milne, Elliot Wagg. “The


I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine
And twinkle on the Milky Way,
They stretched in never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance.

The waves beside them danced; but they
Out-did the sparkling waves in glee:
A poet could not but be gay,
In such a jocund company:
I gazed--and gazed--but little thought
What wealth the show to me had brought:

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

William Wordsworth
Ramble on.
ahead  ramble  speed  punch  trudging
anticlockwise  saunter  spring  shave  peregrinating
around  skulk  sprint  hug  hurrying
clockwise  somnambulate  skip  burst  tresspassing
cross-country  stagger  zoom  glide  marching
down  stalk  swing  shrug  exploring
downwind  stride  whisk  pluck  escaping
eastbound  stroll  stride  sway  strating
homeward  strut  streak  hang  stepping
left  stumble  trotwalk  lumber  climing
leftwards  swagger  jump  heave  windward
non-linear  totter  zigzag  drag  cloud-gazing
northbound  trudge  waltz  bend  rambling
over  wade  climb  run  strutting
passing  walker  tumble  fly  walking
right  pedestrian  meander  meanderer
rightwards  rambler  tiptoe  stagger
southbound  passer-by  grow  sway
up-  straggler  wriggle  slouch
upwind  wayfarer  polka  slouch
westbound  wanderer  with
windward

with  walking  shuffle  plod

to windward  hiking  skate  loiter
direct  ramblin  cat-walk  heave
advancing  bolt  waddle  edge
doncoming  flee  grapevine  drigt
ahead  chase  moonwalk  creep
up  dart  bear-walk  amble
forward  dash  slither  chap
into  flick  prance  mold
forward  hurl  rub  graceful

towards  polka  wriggle  smooth
bound for  polka  stagger  fluid

from all sides  shuffle  sleek  fluid
amble  skate  balletic
careen  cat-walk  dainty
falter  waddle  gentle
flounder  grapevine  lithe
limp  moonwalk  supple
lumber  bear-walk  fluent
lurch  slither  feline
meander  prance  walking
parade  rub  sauntering
prowl  jab  meandering