MOBILE BODY AND SPACE PRODUCTION

ANTONINA TKACHENKO

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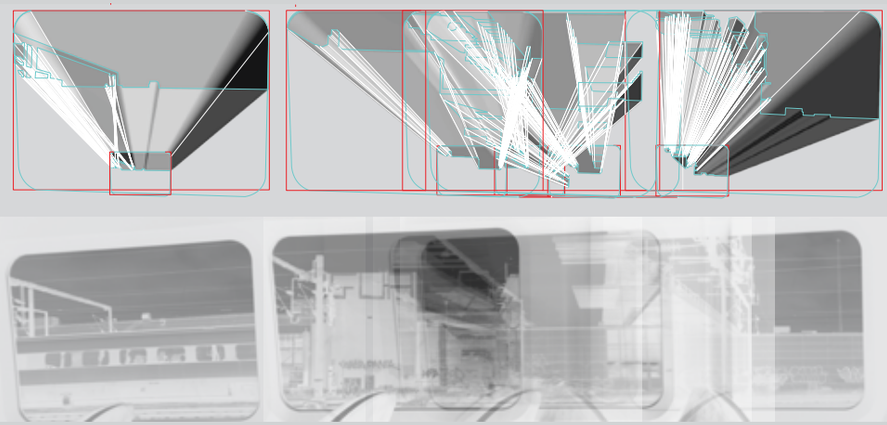

HOW DOES REDEFINING THE RELATIONSHIP OF BODY AND SPACE AFFECT ARCHITECTURAL DESIGN?

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BENVGA05 MARCH THESIS

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introduction.

MOBILE BODY AND SPACE PRODUCTION. How does redefining the relationship of body and space affect architectural design?

The following thesis focuses on expanding the concept of the architectural user through uncovering the connection between space production and body in motion. The findings are applied in the author's design process of the Arts Terrain in Copenhagen's Vesterbro.

Examining such an everyday, overlooked subject as mobility requires a methodology that crosses the traditional boundaries of disciplines and contemporary academic practises. Architecture needs to be understood as a part of the larger social science field, and research expanded beyond conventions of architectural discourse. Setting up this intersectional approach can uncover original and unexpected findings, that are influential in redefining the constitutions of the design process.

The foundations of this approach are established in the first chapter, Body and Space, where interdisciplinary interpretive ideas deployed throughout the thesis are introduced. These include recognising the relationship between body and production of space in terms of Lefebvre's spatial triad. Michel de Certeau's theories on the everyday actions having potential to be spatially activating are also explored. Space production by a moving body is further examined through questioning the idea of the body's spatial location and cognition, or its geography. The idea that corporeal geography is a combination of inner and outer worlds is established, through an exploration of Behavioural Geography and Steve Pile's *Body and the City*[1]. Psychogeography and the Situationist concepts then used to further the investigation.

Applying the concepts discussed in Body and Space, the second chapter explores the possibility of engaging with the mobile body's spatial production qualities through an Active Architecture. Here de Certeau and Lefebvre's ideas return as springboards for concluding that by employing and addressing various types of movements, one can challenge the creation of homogeneity and boredom in architectural design. Applications of these concepts are explored through the critical assessment of OMA's Euralille and Michael Maltzan's MOMA and Carver Apartments.

Chapter three of this thesis focuses on testing the established theoretical framework on the author's design proposal. Different

1 Pile, S. (1996) *The Body and the City: Psychoanalysis, Space and Subjectivity*, London/New York: Routledge.

types of existing and proposed movements are explored through a mixture of narrative visual scenarios and theoretical discussions.

In conclusion, it is suggested that the methodology employed in this thesis is a successful starting point for creating a conceptual and ideological catalyst for architecture that is multisensory, multi-perspectival and open to appropriation. It encourages an architecture that reevaluates the potentials of the moving body, for a more successful public space.

1 body and space.

The body is central to comprehending the built environment. Through various actions and operations it acts as a medium between our consciousness and space. Therefore architecture, as a discipline dedicated to the construction of that space, operates in the realm of anthropocentrism. However, within this relationship the body is predominantly viewed as a static, homogenous user, rather than a mobile, active operator.

Working with sites such as the disused railway terrain in Copenhagen's Vesterbro (Fig.1) encourages the use of a mobile operator as a central tool for formulating and developing the design. An interesting relationship between the architecture and the operator is formed, as the site is landlocked by existing trajectories of transport and can only be experienced from outside its boundaries. The historical, geographical and sociopolitical context reveals the potentially diverse experience of the proposed spaces. Hence, the initial aim of this thesis is to begin to uncover the spatial implications of working with a variety of ways and modes in which architecture can be viewed and practiced.

Fig.1 *Aerial view of the site boundaries and its context.*

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1.a Body producing space

To begin, it is essential to grasp the complexity of the body and space relationship. Henri Lefebvre's *Production of Space*[2] is a useful framework for establishing an understanding of various types of spaces and the subsequent diverse relationships that the body has with them. Lefebvre recognizes the body as being central to the spatial triad (spatial practise, representations of space and representational space). He suggests that the body encompasses and unifies the material and abstract worlds.[3] Furthermore it is recognised as the source of creativity, as its activities "preserve difference within repetition," making it "responsible for the emergence of the new from the repetitive." [4]

Lefebvre emphasizes that the body is unique, being both a space producer and a space in itself. As he suggests, "each living body is space and has its space: it produces itself in space and also produces space,"[5] so the two are interrelated and codependent. Thus the body is the primary way in which space is perceived, understood, and related to the self. Central to this is the nervous system, with sensory organs dedicated to each sense, allowing one to respond to external stimuli and position oneself in space. The mobilization of this sensory system forms an experience essential to our relationship with, and position in the world. The familiarity of the body allows for it to become a constant, which is always "here." In this way the mobile body experiences the unity of all its parts, and perceives the changing of the world around it in relation to the continuous "here," as one is intuitively distinguished from the other.[6]

These notions lead to an understanding of space through the Lefebvrian triad of nonconflicting, cooperative spatial practices, and their associated bodily perceptions:

+*The spatial practice and the perceived space*. The empirically observed, everyday functional space, which is experienced through the use of physical apparatus of the body: the sensory organs, hands etc. This formulates the most practical and material basis of space from the physiological perception of the outside world.[7]

+*Representations of space and the conceived space.* The space which is produced and conceived in and through abstract, systematic and conceptual ways, associated with disciplines such as planning, mathematics and science. It is formulated intellectually through constructed systems such as verbal signs. It is the "dominant space in any society"[8] and is affected by its beliefs and

2 Lefebvre, H. (2000) *The Production of Space,* Oxford: Blackwell Publishers
3 op. cit: 203
4 op. cit: 203
5 op. cit: 170
6 Solnit, R. (2001) *wanderlust, A History of Walking*, London:Verso: 27
7 Borden, I. (2006), *Beyond Space, The Ideas of Henri Lefebvre in Relation to Architecture and Cities.,* manuscript copy., p.10-11 and Lefebvre, H. (2000) ibid.: 39
8 Lefebvre, H. (2000) ibid.: 39

dogmas. So in terms of the body, it is the space conceived through our preconditioned and preexistent knowledge and understanding of our anatomy and relationship to nature and environment.

+*Spaces of representation and representational space.* The everyday, lived space of users and inhabitants.[9] It is the space subconsciously experienced through symbols and images, which is both a space of imagination and invention. The activity of the mobile body is an example of production of representational space, whereby new spatial meanings are generated from the symbols and images of the everyday.

9 op.cit: 39

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1b. The mobile body

As evident from Lefebvre's ideas of spatial production, the body in question is not that of a passive user, but an active, social "subject." Operating within the realm of representational space, the active or mobile body is essentially activating and formulating space. The idea of action as a spatial constructor in relation to the quotidian is explored in Michel de Certeau's, *The Practice of Everyday Life*[10], where he states that, "space is a practiced place."[11] Through displacement, space becomes differentiated, inhomogeneous, develops meaning. Thus, the neutral homogeneity of abstract space can become differentiated and acquire meaning through the simple action of movement from one point in space to another. The physical displacement distinguishes the space of the body from the space through which that body moves, which might be point of departure, point of arrival, or the in-between space of travel. More complex and meaningful spaces are developed, with the addition of physical, subconscious and intellectual constructs. In this way the creation of spatial meaning is similar to a cinematic experience, where the understanding is constructed "moment by moment through a series of fleeting and solitary embodied encounters."[12]

10 de Certeau, M. (1984) *The Practice of Everyday Life*, Berkley: University of California Press.

11 op. cit: 115

12 Spinney, J., (2007) 'Cycling the City: Non-Place and the Sensory Construction of Meaning in a Mobile Practice', in Horton, D., Rosen, P. and Cox, P., (eds.) *Cycling and Society (Transport and Society)*, Surrey: Ashgate: 25

Bodily displacement is a basic type of a corporal activity that produces space. Imposed into a social context, displacement develops into a "network of paths and roads made up of space just as concrete as that of the body-of which they were in fact an extension."[13] This once again demonstrates the interrelation of body and space, and how produced space is a result of the bodily movement both physically as well as psychologically. As Lefebvre suggests, this elemental spatial activity resulted in the inception of spatial hierarchy and organization. This idea is further developed by Tim Ingold, who summarizes that "there can be no places without paths, along which people arrive and depart; and no paths without places, that constitute their destinations and points of departure."[14] Hence, by having an active attitude to space, displacement not only produces space but creates destinations, which form architecture. In fact, architecture can be seen as much as the space in-between the motion, as well as a point of departure and arrival. Consequently, for our mobilized bodies, architecture occupies the blurred background of our perception through the process of tactile and optical appropriation.

In this way the body is seen as an agent of spatial activation. This idea is central to Lefebvre's project of *rhythmanalysis*, in which he recognized that the meaning of architecture can be redefined through the study of the body's everyday physical and mental activities in relation to the space they create and appropriate. The built environment gains meaning beyond the "object" and becomes a "place[s] of epistemological and social negotiation conducted through the figure of the subject."[15]

13 Lefebvre, H. (2000) ibid.: 193
14 Ingold, T., (1993) 'The Temporality of Landscape', World Archaeology, Conceptions of Time and Ancient Society, v. 25, no. 2: 152-174 JSTOR [Online]. Available at: http://www.jstor.org/stable/124811 (accessed 20 April 2014): 167
15 Borden, I. (2006) ibid.: 25

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1d. Geography

Having established the body's importance to the concept of space, it is important to explore its' relation to Geography. Geography here is discussed and understood as encompassing notions relating to spatial locations of the body. It follows that this corporeal geography is a combination of both the inner and outer locations.

To understand the processes and consequences of spatialisation it is useful to look at Behavioural Geography, an approach to human geography that focuses on the cognitive processes underlying spatial reasoning, decision-making, and behaviour. The cognitive approach within Behavioural Geography is specifically useful for comprehending space production as a combination of mental and physical processes.

The first understanding of geography through perception and study of human interdetermination began with William Kirk, and his exploration of the psychological theories of Gestalt. According to Steve Pile, for Kirk recognizing space in a psycho-physical way was 'critical because it connect[ed] the internal mental world of people with the external physical world of society and nature: it... link[ed] people to their environment."[16] Nevertheless Kirk made a clear distinction between the phenomenal and the behavioural space, and concluded that perceived space was constructed through learning. His appropriation of Gestalt psychology crucially established the importance of subjectivity of experience, and that people can alter physical, geographical and social environments into which they are placed. The act of perception was attributed with the power of altering spatial cognition, and was seen as working according to innate abilities which organize environmental stimuli into coherently organized forms or patterns (or Gestalten).[17] In summary, Kirk's theories were influential in offering an alternative mode of explanation for "geographers who were sick of the over-simplified and reductionist model that geography was commonly utilizing."[18] Kirk established the importance of human intermediation between overt behavioural responses and the stimulus provided by the outside world. This began to suggest the importance of perception and the innate subjectivity of people's experience of space.

From this the idea of the image became crucial in Behavioural Geography's analysis of people's relationship with space. Understanding spatial patterns and processes was seen as impossible without understanding how the individual imagined the world and made decisions based on that image.[19] The image referred to is not a literal picture in the mind, but a cognitive construction. It is seen as crucial to the two key aspects of the body's relationship

16 Pile, S. (1996) ibid,: 21
17 op. cit.: 23
18 op.cit.: 22
19 op.cit.: 24

with space- the mind's perception of the environment and the overt spatial behaviour.[20] Although Behavioural Geography can be commended for pioneering the placing of a thinking person at the centre of geographical analysis, and emphasizing individual subjectivity, the approach has its limitations. This can be seen within the two strands of Behavioural Geography's idea of the nature of the image. The first saw it as a cognitive structure consisting of limited perceptions of the world which could be elicited, specified and measured; while the second had much more of a visual concept of the image, suggesting that we carry around in our heads mental maps of the world- which can be elicited, drawn and measured.[21] Both models appear to be inadvertently trying to simplify what we today recognize to be a much more complex combination of various processes and constructions. They do this by trying to impose a familiar system, based on patterns (Gestalten), onto the process and thereby limiting the possibilities of the body's ability to produce space. Nevertheless the idea of the image is useful as a starting point for understanding the ways in which the body navigates through space; and the associated networks of trajectories, paths and signs.

20 op. cit.: 24
21 op. cit.: 25

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1e. Psychogeography

The connection between spatial corporeal experience and geography has been recognized and explored in Psychogeography, which emphasizes the idea of playfulness and questions the existing urban boundaries through re-establishing the power of a moving body in the city. In 1955 Guy Debord defined the movement as "the study of the precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behaviours of individuals."[22] Although this description suggests a set of scientific-like, exact approaches, Psychogeography, as Debord himself later proclaims, is the celebration and study of vagueness found in concepts of ambience and atmospheres. In a way, Psychogeography can be understood as an attempt to break away from the limitations associated with employing a systematic scientific model, such as Behavioural Geography, on understanding the body and space relationship. This playful approach is very much a result of Psychogeography's Situationist International (SI) roots- an organization of social revolutionaries, active from its formation in 1957 to its dissolution in 1972, of which Guy Debord was a founding member. Psychogeography was part of the Situationist attempt to restore everyday life from the damage inflicted by capitalism. They rebelled against the imposed framework that eradicated authenticity and first hand experiences and created a society based on spectacle.

The methodology central to Psychogeography is urban wonder, or dérive (See Section 3G for discussion of dérive). Although as a set of methodologies Psychogeography appears unresolved and incomplete, what remains today is its central principle of practice. For, only through the practice of its techniques one can complete their understanding of the Psychogeographic approach. This core belief in the active engagement of the user is very much in keeping with the Situationist Marxist beliefs, as well as Lefebvre's call for a subject-activated urbanism.

22 Debord, G. (1955) 'Introduction to a Critique of Urban Geography,' Bureau of Public Secrets, n.d, http://www.bopsecrets.org/SI/urbgeog.htm. (accessed 8 April 2014)

Although contemporary appropriations of Psychogeography have developed beyond SI's concepts, the core elements remain. These are the dissatisfaction with the nature and design of modern environments and a desire to make the everyday more compelling. An example of this is the work of the British filmmaker and writer, Patrick Keiler. His film, *Robinson in Ruins*[23], a sequel to *London* and *Robinson in Space*, provides a useful springboard for understanding the complexity of the modern relationship between landscape and movement.

In accord with the method of dérive, central to the film is the journey of the fictional protagonist, Robinson, recorded through video and narration. On this journey the landscape is transformed into Sites of Specific Scientific Interest, implying that Keiler views landscape as a surface layered with meaning and information. The journey acts as a method for discovery, reinterpretation and creativity and discusses the ideas of belonging and displacement.

By employing long stills, the landscape is framed in accord with Picturesque traditions, transforming everyday paraphernalia into a synecdoche for the larger systems at play. (Fig.2) In reference to this effect, Keiler summarizes, "If you looked at the landscape hard enough it would reveal...the molecular basis of historical events."[24] (Fig.2)

Fig. 2 *"If you looked at the landscape hard enough it would reveal to him the molecular basis of historical events."*

23 Keiler,P., (2010) Robinson in Ruins.
24 op.cit.

The sense of journey's progression is created, through a zooming effect constructed from still shots filmed from various view points. A clear example of this technique is demonstrated in the following long takes:

Fig. 3 *"He visited the nearest standing stone. In the hope that it might offer a materialist inspiration, resembling experience of the sacred, which it did. Though it turned out that the stone was not an ancient monument, but had once been a footbridge across a little stream, now dry."*

Fig. 4 *"In the previous months the price of wheat and other commodities, including oil, had risen sharply, driven by both speculation and increased international demand. A footpath, once a Roman road, lead him to a gasometer, and to a recently opened supermarket..."*

Fig. 5 *"… next to the surviving fragment of what has once been the Morris motor works, where the mini once produced in 1959. Lidl had been granted planning permission only after an appeal to the central government, heard at a public enquiry. With 7,500 stores in 24 countries, Lidl had been criticized repeatedly for mistreating its employees. On the previous day Stern had revealed that the company had used hidden cameras to spy on its workers in a manner reminiscent of the Stasi."*

This dérive-like method, suggests that the landscape is a combination of "unfinished trajectories"[25] and "stories so far."[26] The uncovered landscape is not a smooth surface, but entangled, textured and complex, ""a dynamic simultaneity, always in the process of being made, and open to alternative ways of being made."[27] Like Lefebvre, Keiler demonstrates and promotes the productive power of the body; the ability to reinvent, reapply oneself and reappropriate the existing to construct an alternative space.

25 Massey, D., (2011), 'Landscape/space/politics: an essay', The Future of Landscape and Moving Image, n.d., http://thefutureoflandscape.wordpress.com/landscapespacepolitics-an-essay/ (accessed 14 April 2014): 25

26 op.cit.: 42

27 op.cit.: 25

2 activate architecture.

What Keiler's cinematic work demonstrates is a possibility and need for an alternative approach to the use and creation of space. Michel de Certeau shared many of Keiler's frustrations and ideas, appealing for the rehabilitation of playfulness and surprise in the everyday. However, contrary to de Certeau's belief in lack of surprise in contemporary landscape, *Robinson in Ruins* demonstrates it in abundance. Using film as a medium allows Keiler to reframe spaces and force the viewer to reconsider the familiar, discover the unexpected, and imagine an alternative present and future. The role of the director here is essential- framing and guiding one through the webs of narrative. This is a role that could transfer to the architect, in order to achieve what Keiler calls "ecstatic architecture."[28]

Applying cinematographic concepts to spatial practise results in prioritisation the viewer's perspective. Architecture would thus be derived from and work with specific ways of movement through space. It can become the space between destinations, rather than just the destination. In this way it is treated more like a landscape, an inhomogeneous, anthropocentric topography, with texture and punctuation. The texture emerges from the notation of the body's movement and spatial possibilities. The architecture produced as the result is one of constant change and transition, a true framework to our lives.

Furthermore, architecture can take inspiration from other disciplines that recognise the body as the primary way of spatial cognition and appropriation, such as choreography and dance. The work of the progressive, contemporary British choreographer Wayne McGregor is particularly exemplar for the sense of freedom with which he empowers his dancers. His recent production, *Atomos*[29] and the coinciding exhibition[30] demonstrated his recognition of the body as a cognition instrument of our architectural environment and choreography as physical thinking. McGregor operates in the realm of suggestions and stimuli, triggering kinesthetic responses from the dancers, who tailor the choreography to their bodies by reinterpreting and developing it.[31] This approach of collaborative creativity with the diversity and uniqueness of each body can be exemplary for an architecture that is suggestive and open to be appropriated by its user.

De Certeau calls for these kinds of spaces in his vision of architecture as a theatre for actions, which "provides space for the actions that will be undertaken; it creates a field which serves as their

28 Keiler, P.,(2013) *The View from the Train, Cities & Other Landscapes*, London: Verso: 84
29 McGregor, W. (2013) *Atomos.* Random Dance. [Sadler's Wells, London. 11 October 2013]
30 'Thinking with the body: mind and movement in the work of Wayne McGregor | Random Dance', The Wellcome Collection, 183 Euston Road, London NW1 2BE, 25 September 2013.
31 McGregor, W. (June 2012). 'A choreographer's creative process in real time,' [Video file], retrieved from http://www.ted.com/talks/wayne_mcgregor_a_choreographer_s_creative_process_in_real_time.html (accessed 20 April 2014)

base and their theatre."[32] Recognizing and engaging with multiple experiential possibilities can create a dynamic, multifaceted and diverse architecture that reflects the capabilities of the contemporary individual. Thereby architecture won't need to rely on additional layers of signs and signifiers, which code and restrict the body in the urban environment.[33] This methodology has the potential to reinstate public, communal space within the increasingly privatized world. By working with specific perceptive relationships, it will not have to rely on monumentality to captivate. As Lefebvre suggests, even though monumental spaces often project themselves as communal ones, belonging to all, they often conceal power relationships beneath the surface of collective thought.[34]

The idea of belonging is particularly pertinent within contemporary environment. As revealed in *Robinson in Ruins*, our relationship with the space we find ourselves in, is no longer associated with such terms as 'occupy' and 'belong'. Space is becoming increasingly controlled and privatized by larger global forces. Hence the freedom and sense of ownership provided by digital spaces become more attractive, bringing about alienation between body and space.[35] This is part of the larger situation, of the mechanised, digitalized world we find ourselves in. Even though machines have sped up our lives, they have not given us more free time for creativity and play. Instead they made us strive for faster, bigger and more.[36] In this situation, remembering the possibilities and crucial ties between body and space is essential. Appropriation and activation through the body, a charged, powerful spatial subject, needs to become central to design. Architecture should re-familiarise itself with Lefebvre's method of appropriation and replace "dominated...space of objects with the appropriated... space of pleasure and joy, of community in the use of the gifts of the earth."[37]

32 de Certeau, M. (1984) ibid.: 124
33 Lefebvre, H. (2000) ibid.: 200
34 Pile, S. (1996) ibid: 212 and Lefebvre, H. (2000) ibid: 143
35 Solnit, R. (2001) ibid.: 257
36 op.cit.:253
37 Borden. I. (2006) ibid.: 24 and Lefebvre, H. (2000) ibid.: 380

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2a. Precedents

It is important to acknowledge that a variety of proposed and built projects have, to various degrees of success, employed movement as a generative and influential design component. Motion and perception of architecture from different speeds, time scales and viewing positions is a concept that is often explored in scenarios, like the Copenhagen site, where a complex network of existing infrastructure is in place.

One of such projects is Euralille, a new quarter in the city of Lille, France conceived and constructed in the 1990s. The urban design and master planning of the project was lead by Rem Koolhaas, of Office of Metropolitan Architecture. As stated on OMA's website the project is based around the high speed railway network, TGV, and its possible extension from France to Britain, which will potentially erase borders and will make Euralille a globalised, futuristic, yet historically hybrid development.[38] (Fig.6) As Kim Dovey summarizes, it was "conceived as a generic city of transition and movement, infused with the desire for freedom from the fixity and local identity."[39] The aim of the project was developed in accordance with Koolhaas' idea of contemporary architecture needing to focus on visual, not social elements, introducing an "urban anomie, the very absence of identity and place, with the joys of movement and speed."[40]

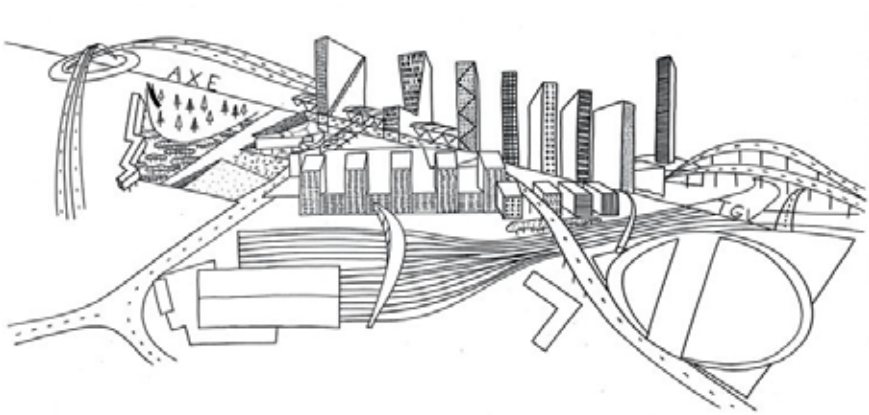

Fig 6. *Sketch of the plan for the Euralille Business Center: the Centre Internationale d'Affaires*

Here Koolhaas recognises the potential of kinaesthetics as a design sensibility, appropriate for the globalized, digitalized, fast paced contemporary life. However, unlike the idea of active architecture, EuraLille's conceptualisation reveals a rejection of different kinds of speeds, activities and modes of spatial practice coexisting. What has become evident through the post-completion analysis of the project is the lack of appreciation for scale variations specific to various mobilities. This has lead to EuraLille lack of success as a bustling, busy environment. Much of the movement is specified and confined to forms such as the elevated walkways (Fig.7). These resemble cul-de-sacs rather than thoroughfares, meaning that much of the public space has become deserted or closed off.[41]

38 OMA (n.d.) *'Eurallile, France, Lille, 1994'*, http://oma.eu/projects/1994/euralille (accessed 10 April 2014)
39 Dovey, K., (2008) *Framing Places. Mediating power in the built form.*, London/New York: Routledge: 179
40 OMA (n.d.), ibid.
41 Dovey, K., (2008) ibid.: 186

Fig. 7 *Photograph showing the elevated walkways. EuraLille, OMA*

Despite this, as Dovey suggests, some of the development's elements are rather successful in terms of transitioning between the scales of the car and pedestrian, and the old and the new Lille. This is so, particularly for the shopping mall's portico entrance (Fig.8), designed by Jean Nouvel and described as 'the most visually engaging part of the project and the most urban…. Is well-scaled and often busy with traffic to and from the mall.'[42] Here Koolhaas and Nouvel envision the shopping mall as the contemporary replacement of the social and urban function of the street.[43]

Fig. 8 *Portico Entrance to EuraLille shopping mall*

42 op.cit:184

43 op.cit.: 184

Michael Maltzan

The work of Michael Maltzan, a Los Angeles based architect, is exemplary for creating spaces of mobility, centred around human perception and activation. The designs are often seen as "kinetic configuration of elements,"[44] whereby architecture is fragmented and works around the idea of flow. The notion of flow is just as much about circulatory, internal movements of the building's users, as the relationship of the external form to the cityscape. His approach appears to emerge from a critique of urbanization in an era of increasingly mobile, mutant cities, impacted by media and the artificial. This awareness is a result of Maltzan's context of Los Angeles, a city where mobility, sprawl and homogeneity are everyday realities. As Raymund Ryan summarizes, "Maltzan's response is to augment the topography and context in which we find ourselves, fusing the natural with the artificial, consistently giving priority to human perception of sensory experience and fluid space."[45]

Fig. 9 View of MoMA QNS by Michael Maltzan from the number 7 track

The idea of fragmentation is strongly shown in Maltzan's MoMA QNS, where the cubic rooftop boxes are painted with fragments of letters M, o, M and A. Designed to be viewed from the elevated number "7" train, running alongside the museum, the letters realign to spell out the institution's name.(Fig. 9) What appears as a playful design move, in fact recognises and celebrates multiple possibilities of human perception of the building. It also creates a connection between the city and the gallery, by contributing to the existing roofscapes of advertisements and water containers. By actively engaging with the roofscapes and the elevated train network, Maltzan recognizes and celebrates the possibilities of an overlooked stratum of the city. In fact Maltzan himself, describes the museum as "an infrastructure of movement," which creates a "complex series of visual relationships within the context's

44 Ryan, R.., (2005) *Essay: Raymund Ryan/ Alternate Ground*, http://www.mmaltzan.com/essays/essay-alternate-ground/ (accessed 15 April 2014)

45 op.cit.

overwhelming heterogeneity."[46] The sequence of experiencing the Museum through movement is extended into the interior of the building itself, where the physical boundaries of architecture become "expanded space of experience occupied and defined through movement."[47]

Fig. 10 *New Carver Apartments, Michael Maltzan overall view showing adjacent highway*

Maltzan's architecture recognizes that the space between buildings is not empty; that approach and movement is a valid and important part of perception. In fact, experience of Architecture is predominantly oblique, from a mobile point of view. This is particularly pertinent in the context of Los Angeles, a city "experienced first from the freeway, its buildings first encountered in drive by glimpses from the automobile."[48] The Skid Row Residence, actively engages with and emerges from the adjoining Santa Monica Freeway (Fig.10). Although the building's cylindrical, fortress-like form privatizes and shelters from the noise levels of the freeway, the facade is actively engaged with the mobile passerby. As the automobiles pass from east to west, the slits in the facades widen and open up to view.(Fig.12)[49] Maltzan's architecture is not frozen, or isolated in time and space; it is constantly reinvented through the visual engagement of the mobile body.

46 Maltzan, M., (n.d.) 'MoMA QNS', http://www.mmaltzan.com/projects/moma-qns/ (accessed 10 April 2014)
47 op.cit.
48 Ryan, R., (2005) ibid.
49 Maltzan, M., (n.d) 'New Carver Apartments', http://www.mmaltzan.com/projects/new-carver-apartments/ (accessed 10 April 2014)

Fig. 11 *New Carver Apartments, Michael Maltzan, view from underneath the elevated highway*

Fig. 12 *New Carver Apartments, Michael Maltzan, view from street level*

3 movement testing.

>> 3a. Types of movement

As proclaimed by Charles Baudelaire, the modern urban condition is constituted of a proliferation of views and viewpoints, objects and events-all held together by a fleeting sensation of an individual spectator.[50] Since the industrial and technological revolutions, architecture has become much less about the total object, but about its image- an amalgamation of the ways in which it is perceived. It is crucial to acknowledge that within the contemporary city there exist various types of mobility, of which the Copenhagen, Vesterbro site is an example.

As established previously, in order to produce active architecture, the design process has to engage with multiple experiential possibilities. In this thesis, I would like to suggest a methodology of setting up and projecting specific mobility scenarios onto the site to generate and test the design proposal. This method is intuitively linked with the mobile relationship of body and space, as movement is productive and creative, making stories and places.[51] The scenarios need to reflect the variety of different movements and interactions, their specific ranges in scale of time, speed and distance. The basic types of mobile engagements associated with the existing conditions of the site can be categorized into: habitual, exploratory, travel, tourism and wonder. Each of the categories has its own specificities, which are difficult to define and establish within the scope of this thesis. What is universal to all these types of spatial engagement are the tools or technologies, which are employed. Hence the following section will examine the five existing mobilities that are predominant in Copenhagen; the tower (view from above), driving, train, cycling and walking. These are ordered in terms of scale; the implied spatial proximity between the viewer and the subject, which interestingly corresponds with the level of technological interference within the experience.

50 Schwarzer, M. (2004), *Zoomscape: Architecture in Motion and Media*, New York: Princeton Architectural Press: 17
51 de Certeau, M. (1984) ibid.: 115

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3b. Tower

In his essay on the skyline of New York, William Taylor suggests that it was "the approach to the city by rail and the road" which "began to encourage a new perspective of the city, silhouetted against the sky."[52] However, elevated vantage points such as the Rundetaarn observation deck prove that the idea of the skyline, at least in Copenhagen, was established with its construction in 1642. This unique and powerful viewing position offers a 360° panorama of the city, from which the visual simulacrum of the Copenhagen skyline is constructed.[53] The result is one of the most "signature"[54] views of Copenhagen (Fig.13) that contributes towards the larger conceived image of the city.

The power of the skyline lies within the striking visual effect of flattened, silhouetted forms contrasting against the sky and the horizon. Seen from the Rundetaarn, the site appears on the horizon, seeing which in the density of the urban setting can be a liberating experience. Even though the horizon is perceived as a boundary, it is "non-restrictive", as it "marks the limits of our vision but also tempts us into trying to see beyond it."[55] Therefore there are certain qualities of the sublime, that draw our visual attention above and into the distance towards the site.

In Copenhagen the silhouette, of what is a flat city, is made dynamic and identifiable by the numerous spires scattered throughout the city (Fig.14). The skyline is particularly useful as a record and reflection of change in the urban fabric. Hence the insertion of the proposal into this fabric of flat terrain and spires will be especially discernible and powerful as viewed from the tower (Fig.15).

The rower simplifies the city into a text[56], and transforms the viewer into a reader. The city's complexities are made legible; buildings turn into patterns, movement down below is transformed into a smooth flow, and the whole city morphs into a "giant model, where the messy, organic and conflictual appears to be controlled, planned and predictable."[57] The distance and height "immobilizes" and clarifies the urban complexity into a postcard-ready picture- an "optical representation,"[58] where the city appears as a text ready to be read by the viewer (Fig.15).The distance and elevation of the panoramic experience allow the subject to position the site and the proposal within the context of the larger whole, formulating a first visual impression. This impression is particularly useful for visitors, as it constructs a poignant image of the city.

52 Taylor, W. R., (1988) *New York and the Origin of the Skyline:The Visual City as Text*. Prospects, v. 13: 225
53 de Certeau, M. (1984) ibid.: 92
54 Taylor, W. R., (1988) ibid.: 225
55 Borden, I., (2013) *The Singapore Flyer: a Bergsonian Interpretation*, manuscript copy: 18
56 op. cit.
57 Borden, I., (2013) ibid.: 13
58 de Certeau, M. (1984) ibid.: 92

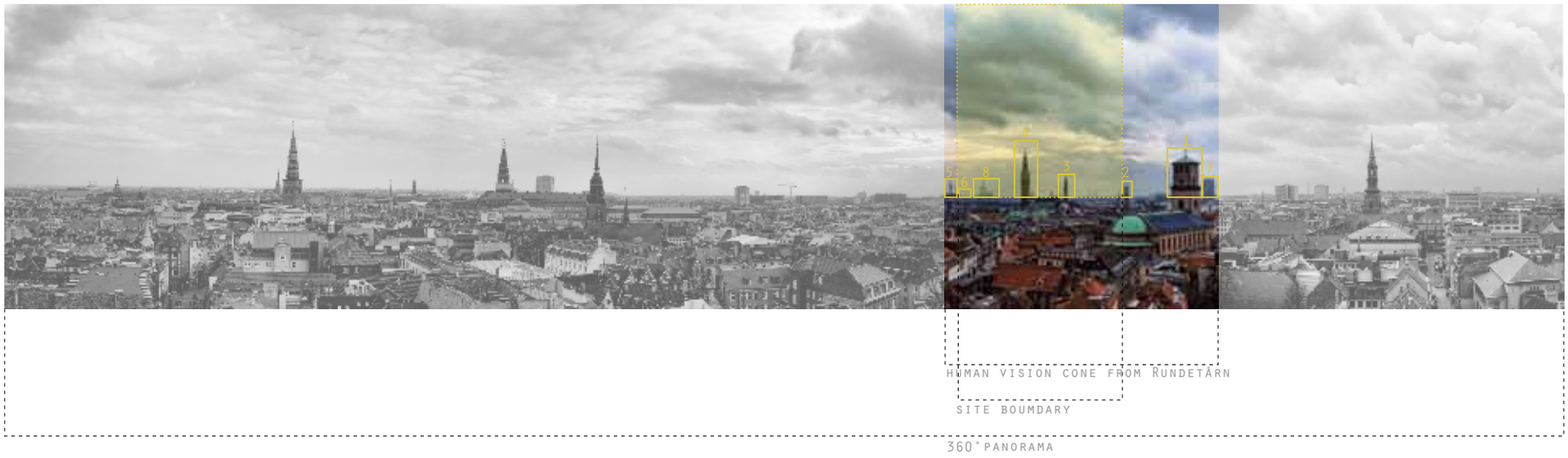

Fig. 13 *Photograph of panoramic view from the Rundetaarn, with the human vision field in colour, skyline elements keyed, and the site visual boundary highlighted*

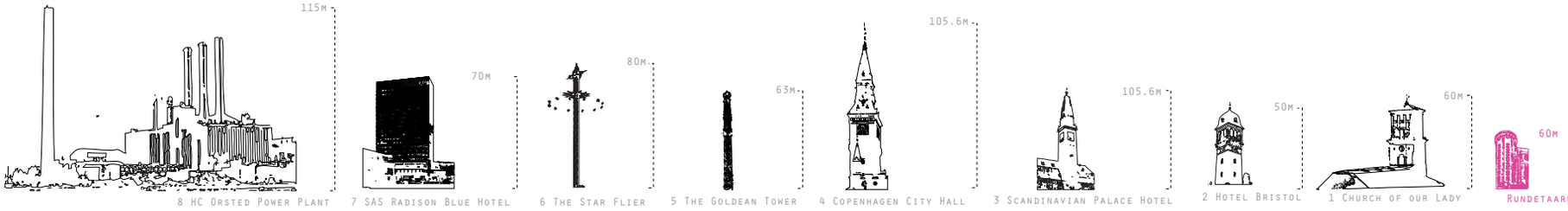

Fig. 14 *Skyline elements and associated heights, that formulate the context of the proposal as seen from the Rundetaarn. Elements are highlighted yellow on Fig.13, above.*

As de Certeau suggests, there is a certain sense of eroticism and pleasure associated with looking from above to down below.[59] Through liberating the body from the clasps of the micro-scale hustle and bustle, the elevation can incite a sense of freedom. On the other hand, it transforms the viewer into a voyeur at a position of visual privilege, able to "read [the world], to be a solar Eye, looking down like a god."[60] In contrast to one's all encompassing, advantageous view, people appear "miniscule from this great height, dwarfed by the massive scale of ... buildings."[61] This scale shift stimulates a false sense of power and disregard for the importance of the micro-scale in the everyday life.

Furthermore, by presenting the city as a larger system, zooming out allows one to discover their position in relation to it, consequently creating an opportunity for reflection and even sublime-like experiences. By elevating the body from the ground the tower detaches and isolates it, providing one with "space and time of contemplation, of calm and suspended thought."[62]

59 de Certeau, M. (1984) ibid.: 92
60 de Certeau, M. (1984) ibid.: 92
61 Taylor, W.R. (1988) ibid.: 230
62 op. cit.: 25

Fig. 15 *Postcard view of Copenhagen skyline from Rundetaarn, with superimposed Arts Terrain proposal.*

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3d.Train

It is essential to engage with the effect of the train on the relationship between body and space, as the railway is one of the most predominant mobilities present within the Copenhagen site context. The site is located next to the Dybbolsbro station (serving urban rail network) and is adjacent to tracks serving the InterCity and regional trains, linked to the Copenhagen Central Station. To understand the effect of this network, it is important to explore the history of its development. Specifically, the "complex process of denaturalization,"[63] which the railway initiated as part of the industrial revolution, and which dramatically impacted the urban environment and its perception.

Unlike previous methods of transport that relied on nature and its forces, train travel broke the connection with natural space, instead relying on mechanical power, which created its own spatiality.[64] The use of mechanical energy promoted order, systemization and efficiency by making all travel calculable, and intorducing a "new reduced geography"[65] quantifiable in terms of time. [66] The boundary between country and city was blurred and the space of journey erased. However, it also generated a large scale spatial augmentation, expanding space beyond the horizon and shrinking distances between places. Above all the railway positioned speed as the new principle of public life[67] and introduced the idea of circulation into our understanding of space.[68]

As Schivelbusch declared, "the traveller perceives the landscape as if it was filtered through the machine ensemble,"[69] the train and body amalgamate and formulate our learned industrialised consciousness. This is evident in the way the rail track acts as a framing, limiting device. It is a predetermined trajectory, restricting the passenger's spatial experience to a rail space.[70] This effect creates a "corridor"[71] experience of the built environment, unlike the multidimensional, multi-perspectival experiences offered by walking or driving. On the other hand, the trajectories of the train often cut across areas of the city that would otherwise be unseen, the backs of the city's façade, such as the railway depot terrain of the site. The existence of a precalculated, predictable trajectory such a selected rail track adjacent to the site offers interesting design possibilities. Thus a video of the train journey recorded as part of site investigation can be employed as a useful design tool. (Fig.16)

The video reveals that, unlike pre-railway travel, space is no

63 Schivelbusch, W. (1986) *The railway journey: the industrialization of time and space in the 19th century*, Berkley: University of California Press, Berkley: 2
64 op. cit.:10
65 op. cit.: 35
66 op.cit.: 31
67 op.cit.: 2
68 op.cit.: 197
69 op.cit.: 24
70 op.cit.: 32
71 op.cit.: 58

longer experienced through a full range of senses. Vision becomes predominant, and limited to the dark frame of the side view window, creating a sense of enclosure and isolation from the traversed landscape.

The window acts as a frame, a "blinder"[72], which conceals the sense of destination and open sight lines. It presents a cropped, constantly framed and edited version of the travelled space. Similarly to the tower view, the train systematises and simplifies the urban environment. The bold cut of the window frame flattens perspective, and together with the directional movement of the train transforms the visual experience into a series of horizontal and parallel lines. (Fig. 14) The eye is drawn towards more stationary, distant objects, that flatten into a planar surface, a silhouette reminiscent of the skyline. The overall effect is what Schivelbusch defined as "panoramic perception"[73]- an experience of a sequence of constantly changing perspectives set along a prescribed trajectory, as seen through the apparatus that also acts as the vehicle. Thus the experience of architecture from the train will be that of amalgamated body and machine, blending and blurring the proposal with its context into a panoramic continuity.

The train's speed dramatically effects the visual perception of space. Similarly to the tower view, the train perspective captures outline and scale, rather than detail and context.[74] Foreground, that connects the passenger to the traversed landscape, is blurred. Perception of detail diminishes as the body becomes disorientated and "out of sync."[75] The passenger attempts to focus on the most static forms: the objects in the distance. Thus the eyes experience a series of rhythmic slides and jerks, panning the most static object until it passes by, and then jumping ahead to connect to the next.[76] In this laborious game of shifting focus, the relationship with the body and the perceived space is in constant flux.

The windowpane, rail and speed of the train create a separation and disassociation between the traversed space and the passenger. An experience defined by Schwarzer as "aesthetics of zoomscapes," which "emerge through speed, but also through personal detachment and the provision of seating comfort and steady, mobile sight lines."[77] Through enclosure, linearity and uniformity, the train denaturalises the relationship between the body and space. So even though panoramic travel may offer picturesque visual qualities, the passenger, a passive "human parcel,"[78] remains "untouched by the space traversed"[79] confined in what de Certeau describes as a "travelling incarceration."[80]

72 op.cit.: 49
73 op.cit.: 64.
74 op.cit.: 52
75 Schivelbusch, W. (1986) ibid.:33
76 op.cit.: 55
77 Schwarzer, M. (2004), *Zoomscape: Architecture in Motion and Media*, New York: Princeton Architectural Press: 37
78 Schivelbusch, W. (1986) ibid.: 39.
79 op. cit.
80 de Certeau, M. (1984) ibid.: 111

However, perception of space through the train can be a positive process of creativity and space production. Besides erasing, speed causes visual experiences to multiply, creating a kaleidoscopic, sensual overload.[81] The new part-human part-machine experience is a vision of velocity, a kinaesthetic excess. Landscape is transformed into a cinematic experience, where the passenger is the camera and the window frame the screen. The train edits and transforms the traversed space, liquefying, blending it, and creating a mobilised architecture. It is, however, a tromp l'œil- a synthetic, constructed vision of mobility. Through its velocity, the train becomes a creative, transformational tool of representational space production. Its constant dynamisms animates the habitual, homogenous landscapes and generates momentary architectural assemblages.[82]

It is these creative and transformational aspects of train travel that become engaging for the design process. The design strives to fill the vacuum of disengagement and boredom, associated with prolonged and habitual train travel. This is done by tailoring architecture towards operating within the specificity of the train view and its trajectory. Thus, the video recording of the train journey becomes instrumental for selecting specific views of architectural engagement.(Fig.17,18) Moments where the proposed architecture tailors towards a specific frame along the trajectory of the train and becomes complete and integrated. (Fig.19,20)

81 op.cit.: 57
82 op.cit.: .54 and de Certeau, M. (1984) ibid.: 112

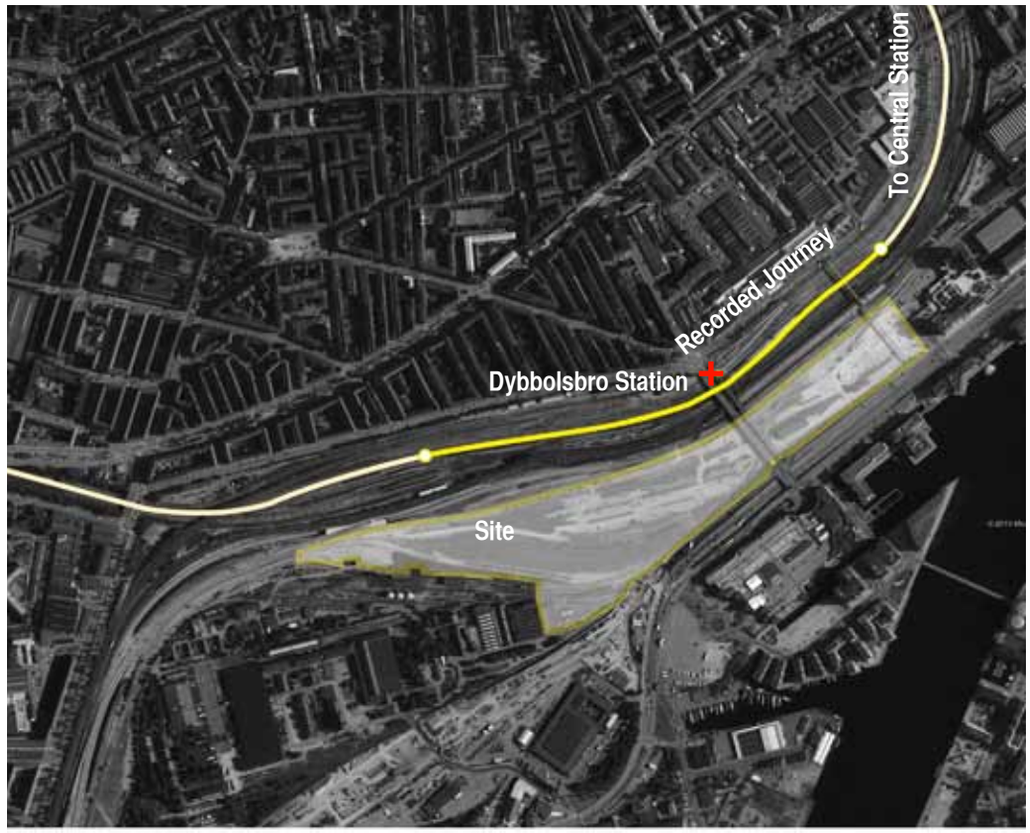

Fig. 16 *Aerial view diagram showing the location of the chosen train trajectory. The yellow line indicates the section of the journey that was vide recorded*

Fig. 17 *Stills chosen from the recorded video, of the site visible through the train window. The stills were selected in order to create a variety of views of the site.*

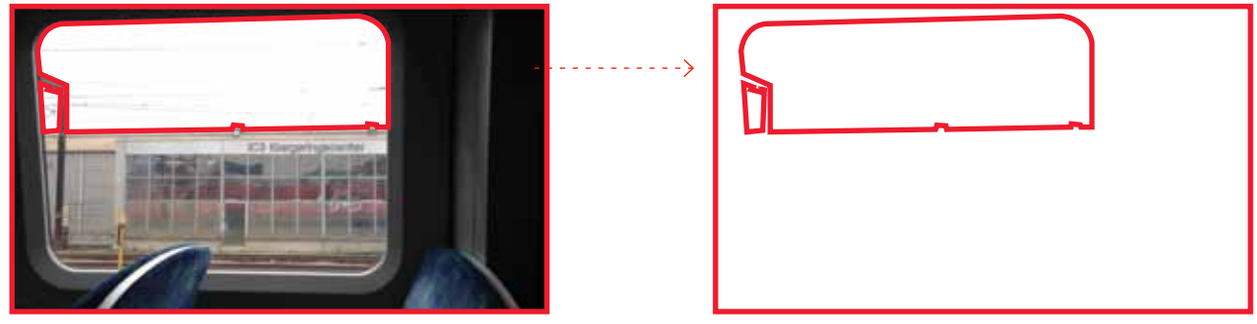

Fig.18 *Video still selected to demonstrate the design process. The space of the site, visible from the train window is outlined and extracted, as a negative space that can be used as a spatial boundary for the design proposal.*

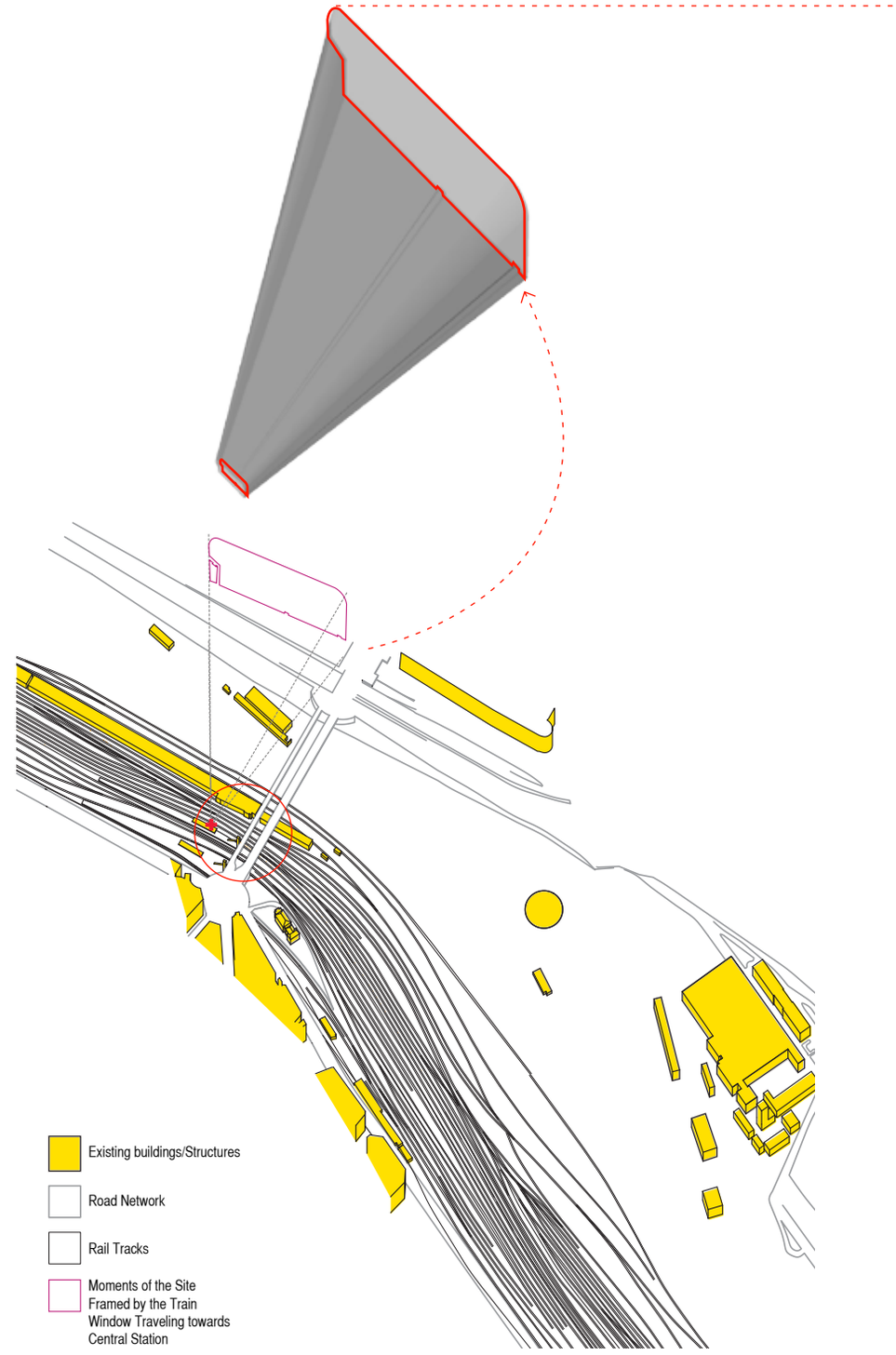

Fig. 19 *Isometric drawing showing the position of the selected train viewpoint. The outline of the negative space of the site as framed by the train window is projected across the site. This makes the spatial boundary three dimensional.*

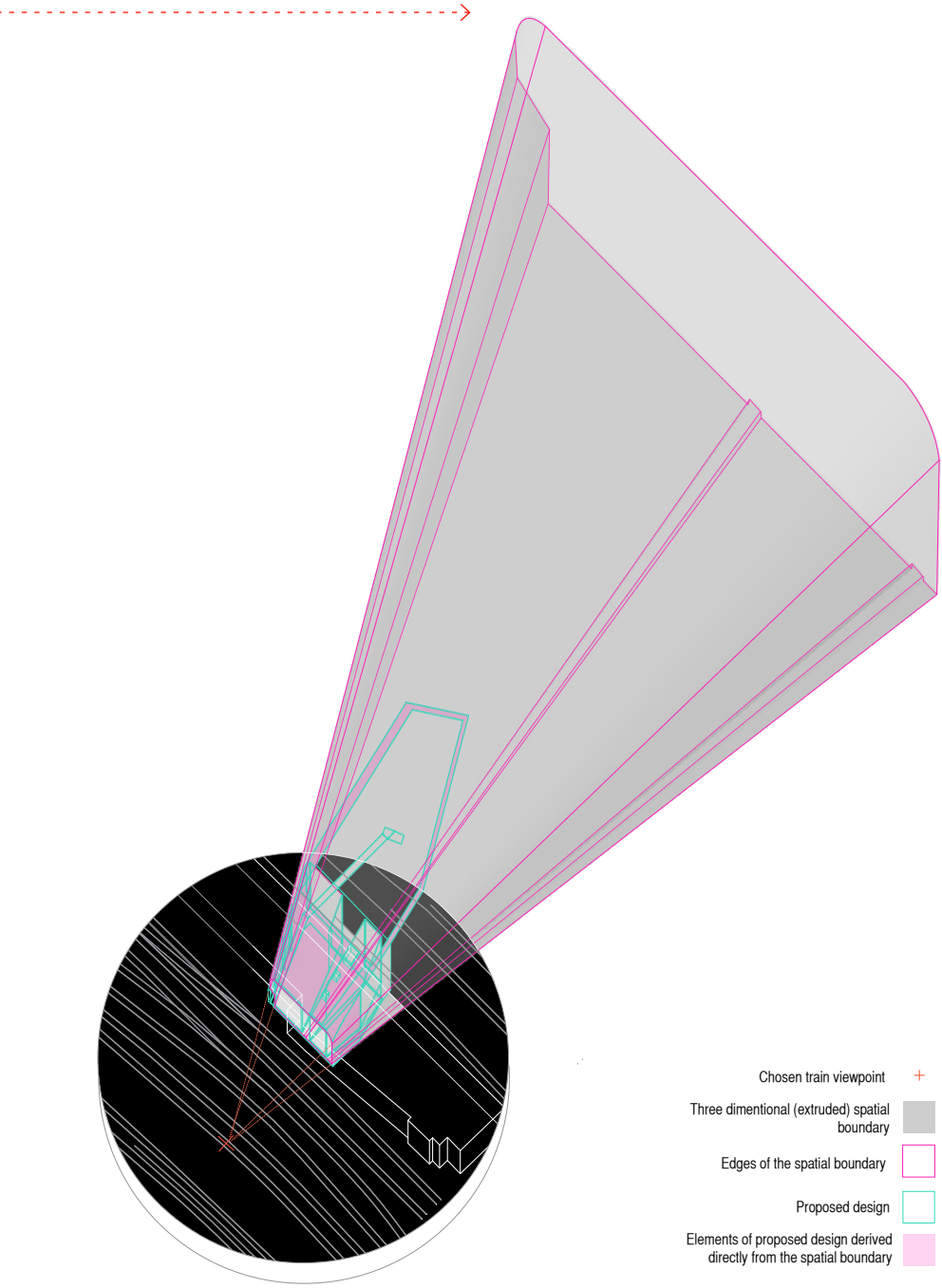

Fig. 20 *Axonometric drawing showing a fragment of the proposed design, derived from the spatial boundary generated from the specific train window view. The architecture has a direct relationship with the mobile perception, creating a unique scenario of integration with the mobile perspective.*

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3e. Driving

Similarly to the train, experience of space through the car is predominantly visual, although much more cinematic and diverse. These characteristics primarily emerge through the car window frame, which forms a "quadtriptich,"[83] offering the passengers and the driver various visual perspectives. Like the train window, the windscreen transforms the traversed landscape into a picturesque object and the voyager into an observer. This sense of disconnection and passivity is specifically associated with the passenger's perspective. Unlike the driver, the passenger has to rely on vision to perceive acceleration, an effect akin to train travel's panoramic perception.[84] The window frame shrinks the passenger's field of vision, transforming the travelled landscape into a stage, that displays a sequence of dynamic images.

Conversely, the experience of the driver establishes the biggest difference between train travel and driving; a sense of freedom and independence. The space as perceived through the car is understood as a space of mobile possibilities, not just a series of views or groups of mobile elements.[85] Despite having to abide to a series of established rules and routes, the driver remains in control; a choreographer of ones own experience. A position described by Virillio as "director of movement", who positions oneself "before a sort of easel composed of the screen of the windshield and the control panel of the components of the motor projector."[86] Here, Virillio, sees driving as a cinematic experience, a visual stimulation; the result of comfort and empowerment provided by enclosure and visual fabrications of speed.

Through speed, static objects become animated and dynamic, they "well up and fall behind, break in two as they pass overhead, slip sideways, rotate."[87] Combined with the framing effect, space becomes fragmented. These pieces are recombined into a sequence in the voyager's mind, to form the unique essence of the journey.[88] The idea of journey as a sequence is explored in *The View from the Road*, a work seminal for its examination of designing from the perspective of the car. The specific methodology devised by the authors' work with visual sequencing, and its essential tools such as tempo and rhythm.[89] By carefully choreographing space in accordance with the specificity of the car experience they believed that one can design autoscapes comparable to pieces of art.[90]

The specificities of the car experience; the effects of speed and

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83 Virilio, P. (2005) *Negative Horizon*., London: Continuum, London: 110
84 Virilio, P. (2005) ibid.: 107
85 Appleyard, D., Lynch, K. and Myer, J. R. (1964) ibid.: 12
86 Virilio, P. (2005) ibid.: 105
87 Appleyard, D., Lynch, K. and Myer, J. R. (1964) ibid.: 11
88 Borden, I.(2013)*Drive;journeys through film, cities and landscapes*,London:Reaktion Books: 96
89 Appleyard, D., Lynch, K. and Myer, J. R. (1964) *The View from the Road*., Cambridge, Massachusetts: M.I.T. Press: 17
90 op.cit.: 3

vector motion, are defined by Virillio as “dromoscopy.”[91] Dromoscopic vision is one of static objects, animated through speed to appear as violently moving towards the windshield. Despite this being a constructive process, the images produced are evanescent illusions. With increased velocity these become more fleeting, and less of the traversed space is perceived. As the speed increases, the driver is forced to engage with elements and events further away, shifting the horizon even further.[92] Thus through the driver’s one-step-ahead, forward focus and the blurring of journeyed space, as in train travel, destination becomes central. Consequently, architectural elements that need to be perceived from the perspective of the car need to be positioned down the axis of the road, so as to appear static and in focus for as long as possible. In this way the cinema tower is positioned adjacent to the roadside, with the information tableau aligned towards the auto perspective.(Fig.21,22)

At slower speeds of urban driving, the driver’s depth of field is continuously altered. At points of decision, attention constantly shifts scales, from detail to generality. Despite the omnipresence of the destination,motion can understood as a series of sequences. As suggested in *The View from the Road*, “Movement along the road consists of a succession of approaches to goals. These are the prominent landmarks or focal points which the observer moves towards, attains and passes by.”[93] This presents creative opportunities, of conceptualizing the road, such as the homogenous O2 Ring Road, adjacent to the site, as a linear exposition. Hence, the architecture has to encompass the linearity and progression of the auto perspective, and provide a sequence of striking visual targets. (Fig.21)

Many consider driving as “a destination-focused and overtly functional activity,” an “experience devoid of consciousness or bodily sense,” producing a “placeless world, abstract and flattened terrain.”[94] Yet, the car should not be interpreted as a mere tool of transportation, but a way of modifying and creating new perceptions of physical reality. By providing a different spatial practice, driving can inspire us to reconnect with familiar landscapes in a new, dynamic way.[95] Isolating objects from their immediate context, it provides one with a fresh, personal experience. Furthermore, as driving contributes towards the larger systems and rhythms of the city, it comes across a number of unpredictable, spontaneous scenarios that make it more dramatic and adventurous.

Although typically associated with routine and the everyday, urban driving, as demonstrated above, is an experience of exceptional visual awareness. It is the combination of its habitualness and

91 Virilio, P. (2005) ibid.: 105
92 Virilio, P. (2005) ibid.: 111 and Appleyard, D., Lynch, K. and Myer, J. R. (1964) ibid.: 6
93 Appleyard, D., Lynch, K. and Myer, J. R. (1964) ibid.: 14
94 Borden, I. (2013) ibid..: 168
95 op.cit.: 76

receptiveness, that allows one to register the changing state of the city.[96] In this way it allows the voyager to connect with a larger understanding of place. The adjacent O2 Ring Road enables the driver to circumnavigate the city and comprehend the site as a part of its larger context.

One way of engaging with the productive qualities of driving, is to consider architecture as signs, as explored in the seminal work *Learning from Las Vegas*. By transforming architecture into two dimensional, purely visual form[97] driving is particularly successful in recognising and engaging with symbols of larger urban systems. As proclaimed in *Learning from Las Vegas*, the physical world as perceived through the automobile can be defined as "symbols in space before form in space."[98] The Las Vegas signscape is exemplary in the way it is tailored specifically towards the mobile viewer and associated speeds. In this way the signs are inflected "towards the highway through the position and form of their elements."[99] Yet a unifying order is present in the chaos, a sense of a "megatexture"[100] and the notion of "the strip as a sequential whole,"[101] which emphasizes the cinematographic qualities of driving.

Venturi and Scott Brown suggest that "complex programs and settings require complex combinations of media beyond the purer architectural triad of structure, form, and light at the service of space. They propose an architecture of bold communication rather than one of subtle expression.[102] Here, the need for architecture to correspond with the speeds and mobilities is recognised, and a vital correlation between speed and scale established. Implementing this concept in the design process establishes a sequence of bold architectural elements and signs. These, like the 'Now Showing' (Fig.22), are aligned towards the driver's perspective, protrude into the road space and are positioned at points of deceleration, such as road junctions.

96 op.cit.: 62
97 op.cit.: 49
98 Venturi, R., Scott Brown, D. and Izenour, S., (1977) *Learning from Las Vegas* (revised edition), Cambridge, Massachusetts: MIT Press: 8
99 op.cit.: 35
100 op.cit.: 13
101 op.cit.: 13
102 op.cit.: 9

Fig. 21 *Collage showing a scenario from the perspective of the driver moving on the O2 Ring Road, towards the city centre. Important architectural elements are positioned adjacent to the road, inflected towards the road perspective. The back of the IMAX screen transforms into an information tableau for the driver and passenger. Furthermore, the architecture of the terrain, with its varied heights, forms and levels of solidity, is choreographed as a continuous progression of diverse visual goals. The road is treated as a sort of promenade.*

Fig. 22 *Collage showing a scenario from the perspective of the driver approaching Dybbolsbro Bridge. Architecture becomes a communication device at these moments of deceleration. The information board protrudes into the windshield view and rotates to align towards the car's position.*

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3f. Cycling

With 51% of all trips in Copenhagen made by bicycle[103] , the city is celebrated for its well-developed cycle culture. It can be expected that the proposed design will be largely experienced by bike and therefore, it is essential to carefully regard and integrate the position of the cyclist throughout the design process.

As a mobility, cycling provides one of the most embodied spatial experiences. Like the train and the car, the bicycle is a piece of technology that impacts and alters relationship of body and space. However, whilst the train and the car limit corporeal senses and are highly visual, cycling engages and heightens all of the senses. In this way Spinney's ethnographic and case study based research demonstrates that hearing is often just as important as vision. [104] Being much more aware of the soundscapes of the city, cyclists ultimately get a more rounded understanding of their position in space relative to others.[105]

Furthermore, the bicycle acts as a tool of extended touch, giving an impression of the micro terrain. Hence, the proposed cycle infrastructure needs to work with materiality and texture, to provide the cyclist with a more engaging, varied experience. To implement that, materials such as perforated or textured steel can be employed within the proposal. Upon contact with the material, the bike will translate the diversity of the terrain to the rider, as well as generate a unique sound-scape.(Fig. 23)

Cyclist's openness to the traversed environment can cause experiences of sensory overload in busy urban situations. In such circumstances the relationship between the body and space becomes creative and productive, as the cyclist adjusts his bodily response to alter the environment around himself/herself. Awareness is narrowed to that directly ahead, creating a concentrated, tunnel-like vision. (Fig.23) As Keiler points out, at other times "if the journey is long enough and the road not too busy, the slightly detached condition of cycling can encourage lengthy associations of ideas and recollections."[106] Unlike the monotonous numbness felt by the train passenger, this "detached condition" is not one of boredom, and is created through a connection of the body to the ground, and the balance between the muscular effort and speed.

In his exploration of bike messengers and the city, Jeffrey Kidder, defines this effect as "flow."[107] By flow, Kidder, references the spe-

103 City of Copenhagen, The Technical and Environmental Administration, Traffic Department. (2013) *Copenhagen City of Cyclists. Bicycle Account 2012* http://subsite.kk.dk/sitecore/content/Subsites/CityOfCopenhagen/SubsiteFrontpage/LivingInCopenhagen/CityAndTraffic/~/media/4ADB52810C484064B5085F2A900CB8FB.ashx : 6-7 (accessed 13 April 2014)

104 Spinney, J. (2007) 'Cycling the City: Non-Place and the Sensory Construction of Meaning in a Mobile Practice', in Horton, D., Rosen, P. and Cox, P., (eds.) *Cycling and Society (Transport and Society)*, Surrey: Ashgate: 34

105 op.cit.: 33

106 Keiler, P.,(2013) *The View from the Train, Cities & Other Landscapes*, London: Verso: 175

107 Kidder, J. L. (2011) *Urban Flow. Bike messengers and the city*., New York: Cornell University Press: 76

cific feeling of balance, created through the engagement of both mind and body. It is a concept connected to the ideas of freedom and working against the grain of routine and systemization, associated with the messengers' work, which "instead of following scripts…must creatively construct new scripts from moment to moment."[108]

Exploring bike messengering is useful for understanding the bicycle's potential for transforming our relationship with urban space. It is noteworthy for demonstrating appropriation of space and play, which are instrumental in achieving active architecture. In this way, bike couriers use the existing urban systems and traffic rules in a creative way, "only as predictors of what other users of the city should be doing."[109] Furthermore, they conceptualize the city in a playful manner as a "shifting puzzle,"[110] the solving of which requires creative spatial thinking on both the micro and macro scale, to create the shortest route between two points. Unlike with train and car, the space of the journey becomes highly sensed and embodied. Similar appropriations of existing urban spaces are currently active on site, as the semi-derelict railway depot terrain is used by the local cyclists as a shortcut, alternative to the busy regulated Ring Road. Furthermore, choosing the backstreet route allows one to experience the leftover parts of the city that are normally kept hidden from view of drivers and pedestrians.

Besides being a way of discovering the city, cycling produces meaning and transforms spaces. The associated embodiment and sensory experience can generate meaning in non-place environments. By allowing one to perceive non-visually and from within the traversed landscape, rather than at a distance, cycling opens up sense-scapes that contribute towards the making of place.[111] Thus cycling has the potential to be the type of place-making activity that de Certeau suggests makes up the essence of thriving urban life.

Similarly to the way cyclists adjust their senses in situations of sensory overload, they manipulate sensations within their body to produce meaning in non-place landscapes. Spinney demonstrates this phenomenon in describing Alan, a cyclist who "relieves … visual boredom by manipulating the kinaesthetic sensations of muscular effort within his own body in conjunction with the changing topography."[112] Here, unlike the train or car, speed produces meaning as it is directly connected to the corporeal forces and senses. This practice is similar to a bike messenger's place-based and corporeally felt activities that manipulate urban spaces in a playful and creative way, and exemplify de Certeau's affective appropriation of space.[113] It is within moments of impromptu and inventive utilisation of space like this, that individuals can briefly

108 op.cit.: 76
109 op.cit.: 130
110 op.cit.: 130
111 Spinney, J., (2007) ibid.: 33
112 op.cit.: 35
113 Kidder, J. L. (2011) ibid.: 13

reclaim control of their life, and follow Lefebvre by upturning "the oppressive cloak of rationalization permeating everyday life."[114]

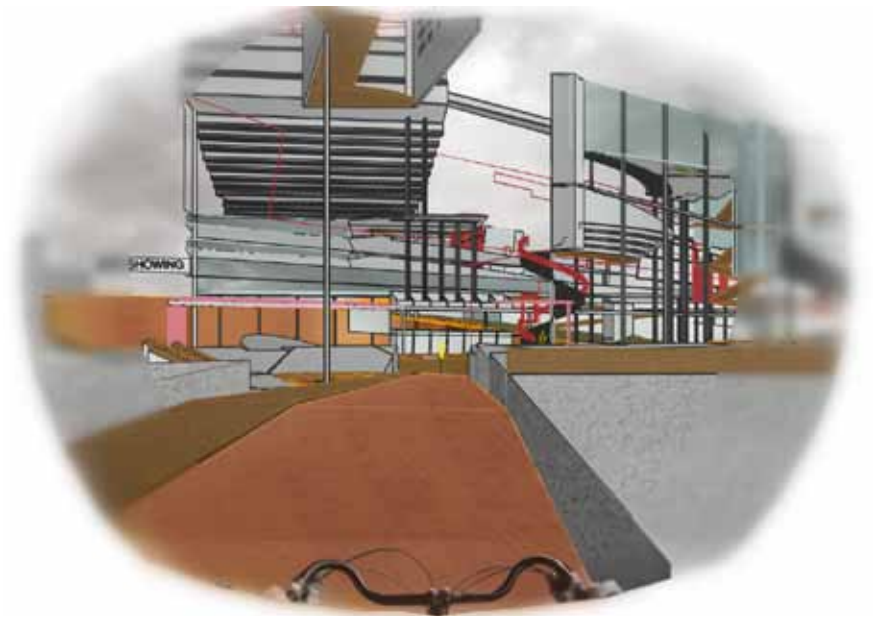

Fig. 23 *Collage of cycling scenario through proposed design. The cycle path is coded with its materiality of perforated and textured steel, helping the cyclist navigate. The positioning of the paths encourages the tunnel vision across longer distances, luring the cyclist forwards with visually engaging architectural elements.*

114 op.cit.: 142

3g. Walking

Unlike modes of mobility discussed above, walking returns us to the most fundamental and unmediated relationship between body and space. In this way it is the most embodied experience of space available; it brings one back to their anthropoid corporeal limits. The writer Rebecca Solnit, describes it as the "simple man action of being in nature and outside society."[115]

Through its simplicity and innateness, walking creates a connection between the mind and body. It is the practice of the previously defined corporeal geography- the combination of both the inner and the outer worlds. The rhythm of walking produces a rhythm of thought, linking the traversed landscape and the landscape of the mind. It is an activity that creates an experience similar to the bike messenger's "flow", where the state of the mind, the body and the world are aligned and synergetic. However, as Solnit points out, it is an activity that has been much devalued through modernisations' attempt to "condemn biology and the life of the senses as negative."[116]

Nevertheless, walking remains a vital element of urban life. It allows one to bask in the richness of the urban texture and its opportunities. Once on the street, the body becomes public. The nature of the contemporary city allows one to remain anonymous, whilst having the power to engage in "unmediated encounters."[117] The process of urban walking can be considered as an often improvised, continuous pursuit of objects, subjects and opportunities.[118] It can be interpreted through a linguistic parallel, which equates it to listening or reading a story. The story unravels and unfolds, giving a level of engagement and understanding unique to the walking perspective.[119] Thus walking allows for a certain continuity of spatial experience, which contrasts the fragment-based sequence of the more disembodied perspectives such as driving or looking from above. This continuity is strongly related to the activity's innateness and naturalness; the fact that our bodies and senses are designed to perceive the world at a speed of 5km/h.[120]

This notion is explored in the proposed design by implementing a strategy of 5km/h architecture. Elements such as material texture and subtle three dimensionality of the terrain define the pedestrian scale of the proposal. (Fig.24) Furthermore, the human vision cone is instrumental in creating fragmentations and cuts through the built fabric of the proposal. Thus a subtle, suggestive strategy of signifiers is tailored to the walkers' perspective, to guide one through often-chaotic spaces. (Fig.25)

115 Solnit, R. (2001), *wanderlust, A History of Walking*, London:Verso: 27
116 op.cit.: 29
117 op.cit.: 171
118 op.cit.: 174
119 op.cit.: 72
120 Gehl, J. (2010) *Cities for People,* Washington:Island Press: 43

Despite being elementary, it is walking that "weave[s] places together"[121] and writes the "text"[122] that is the city. Hence, it is a highly spatially productive operation and one that is instrumental to the city, or as de Certeau writes, "The act of walking is to an urban system what the speech act is to language or to the statements uttered."[123] De Certeau employs this parallel between use of language and walking to present walkers as "practitioners of the city," whose activity constitutes the "contradictory movements that counterbalance and combine themselves outside the reach of panoptic power."[124] As a practise that simultaneously resists and works within the city, walking is in fact the action that produces and liberates the space in which it operates. It is due to the fact that this operation eludes programming and regulation that it shakes up the homogeneity of everyday urban life.[125]

These transformational, spatially productive notions of walking have also been explored in the Situtionist concept of dérive. Guy Debord defines dérive as "a technique of rapid passage through varied ambiences. Dérive involves playful-constructive behaviour and awareness of Psychogeographical effects, and is thus quite different from the classic notions of journey or stroll."[126] It is a methodology, which aims to shake up the familiarity of everyday life, by reading and engaging with the city in a more creative, productive way. By following "ambiences" the technique aims to uncover the city beyond the regulated, systemised landscapes and reconnect it with the corporeal. Therefore dérive demonstrates that the act of movement can be instrumental in re-evaluating and reiterating existing spatial canons of architecture and diversify the spatial experience.

Regarding space production, de Certeau defines "walking as a space of enunciation" through its triple "enunciative" functions: appropriation of the topographical system, spatial acting out of the place and implying relations among different positions through movement.[127] Applying this principle to the proposed design entails organising spatial order as an ensemble of possibilities that are actualised by the pedestrian.[128](Fig.24,25) By appropriating through walking, one is able to alter and transform each of the design implications into something personal and unique.

121 de Certeau, M. (1984) ibid.: 97
122 op.cit.: 93
123 op.cit.: 97
124 op.cit.: 95
125 op.cit.: 97
126 Debord, G., (1958) 'Theory of the Dérive', Bureau of Public Secrets, n.d, http://www.bopsecrets.org/SI/2.derive.htm, (accessed 8 April 2014)
127 de Certeau, M. (1984) ibid.: 97-98
128 de Certeau, M. (1984) ibid.: 98

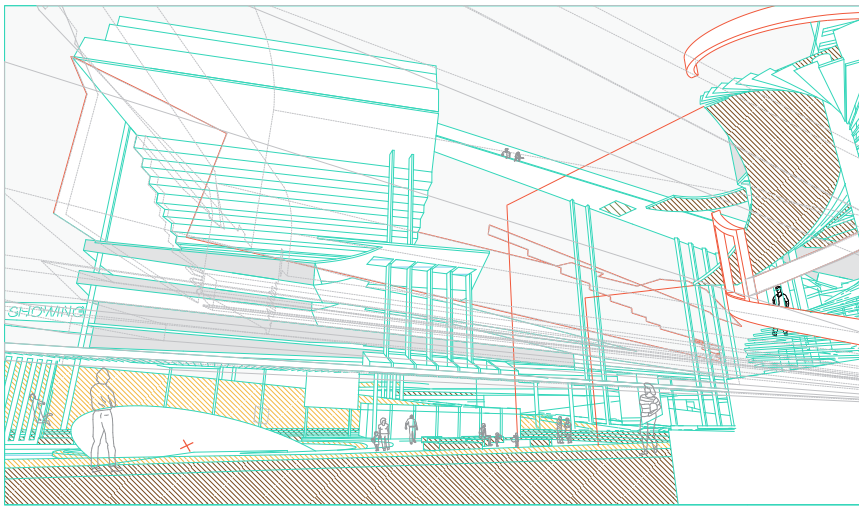

Fig.24 *Scenario drawing of the Performance Arts area from the pedestrian perspective. 5km/h architecture is inserted into the larger elements, by the employment of soft, textured materials such as cork(brown hatch) and a terrain that can be appropriated for pedestrian activity. The walker is not restricted to the cork pathways, encouraged to engage with the whole of the proposed terrain.*

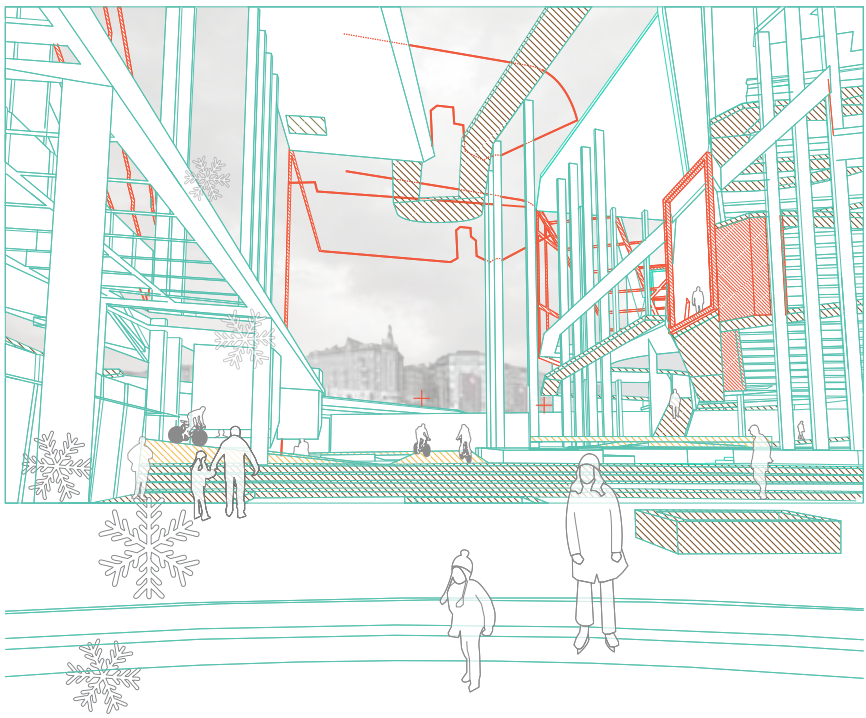

Fig.25 *Scenario drawing of Performance Arts area looking towards Dybbolsbro Station from the pedestrian perspective. The cuts and red signifiers act as navigation tools. The proposed three-dimensional terrain can be reappropriated for an endless variety of activities, and becomes a place through bodily activation.*

conclusion

It is undeniable that perception and practise are fundamental to architecture and its use. However, it has become apparent that the study of social implications of mobilities often falls outside the concern of the designer and architectural theory discussions. What this exploration has highlighted is that in order to introduce the concept of mobility into the design process, the conventions associated with the architectural user have to be broken down. Through reconsidering the relationship of body and space it has become clear that the user can no longer be considered as static and uniform. Examining the writings of Lefebvres demonstrate that the body is active and spatially productive, and its relationship with space can not be grasped in the realm of the abstract. In fact, mobility, is an everyday phenomena, that should be understood through commonplace corporeal senses and specificities of the technologies employed.

Once the relationship between body and space has been reassessed it is important to acknowledge that the contemporary urban environment is understood through a variety of ways and modes. It is therefore in the designer's interest to appreciate the specificities and nuances of the existing and proposed mobilities and the spatial experience they provide. Firstly, the design process can benefit from considering mobility as an active, constructive and productive process, that creates spatial possibilities. The methodology employed in this thesis is an example of how the design process should involve careful consideration and exploration of the specificities of each of the mobile views and their existing and potential engagement with the site and the proposed design. What this method demonstrates is that each mobility formulates unique relationships and impressions between body and space.

It is important to acknowledge, that due to its scope, the thesis is only a starting point for exploring what is a complex topic, and a part of the larger effort to revaluate the importance of the everyday, as advocated by de Certeau and Lefebvre. However, having successfully redefined the relationship between body and space, one can make a start on proposing and considering a reciprocative architecture. Through the design process, architecture needs to be conceptualized as a built form that is interconnected with actions of the city and varied through practice. It is vital that in our increasingly privatised environment, urban spacial practise does not fall under the dictatorship of rules, prescriptions and regulations. Through empowering the body and acknowledging productive qualities of corporeal perception, elements of play, adventure and imponderability can enter the everyday.

This can be achieved through treating architecture as a loose framework, that hints at and creates opportunities for uniqueness

and creativity. By engaging with the cinematic and linguistic qualities of movement, the design process can develop as sequences and scenarios. As explored through movement testing in this thesis, tailoring architecture towards specific mobilities and viewing points actively engages the user and allows movement to be a constructive, determining component. In this way, the body's engagement transforms the designed spaces into places. With a move towards an architecture that employs corporeal creativity against homogeneity, a truly active architecture can be made.

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Fig 2. Keiler, Patrick, (2010), *Robinson in Ruins.*

Fig 3. Keiler, Patrick, (2010), *Robinson in Ruins.*

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Fig 5. Keiler, Patrick, (2010), *Robinson in Ruins.*

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