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**The body as inhabitant of built space: the contribution of Maurice  
Merleau-Ponty and Don Ihde**

**by**

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## Summary

### **The body as inhabitant of built space: The contributions of Maurice Merleau-Ponty and Don Ihde**

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This study explores the problem of how we perceive built space and relate to its abstract representations. In 1897, Poincaré presented the problem of space for the 20th century in his essay 'The Relativity of Space', in which the human body and technics in our spatial experiences were already implied.

Merleau-Ponty and Don Ihde's work is based on the phenomenology of Edmund Husserl and has been influenced to different degrees by Martin Heidegger. The study is presented as a comparative historical-thematic textual study.

For Merleau-Ponty, our primordial perception is general, pre-self-conscious and ambiguous. It is only in reflecting on our lived experiences that we can adequately describe our perceptions. One's own body is the means of having a world that is already inter-subjective. Merleau-Ponty explicates the fusion of body and soul, as well as our irreducible relation to the world by referring to studies of behavioural pathologies. From these studies the motility and spatiality of one's body, as well as habit acquisition are already informative on general spatial experiences, the syntheses of our perceptions and the unity of the world. The body-subject is the nexus of all levels of perceptions. Merleau-Ponty describes the constitution of embodiment relations (by means of habit acquisition) with artefacts that mediate our interaction and perceptions in the world.

Ihde extends this aspect of Merleau-Ponty's phenomenology. Building on Merleau-Ponty's explications of the body, Ihde poses a structure of human-technology relations with different variations: embodiment, hermeneutic, alterity, background and horizontal relations that transform our perceptions of the world and ourselves. Ihde's 'body one' and

'body two' are based on the notion that perception is meaningful and culturally informed. Ihde (after Husserl), shows that geometry and Euclidean space are instances of cultural *habitus* as an abstraction from the lifeworld.

The different human-technology relations are present in our lifeworld-experiences of which built space is constantly part in the background or foreground of our projects and actions. By comparing both philosophers' work in a phenomenological explication of built space, new light is thrown on our experiences and perceptions thereof which have implications on architectural education.

**Keywords:** body-subject, built space, embodiment, human-technology relations, Ihde, inhabiting, Merleau-Ponty, perception, technology.



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## List of abbreviations

Texts by Maurice Merleau-Ponty (in alphabetical order)

*N: Nature: Course Notes from the Collège de France*

*PP: Phenomenology of Perception*

*PrP: The Primacy of Perception*

*PW: The Prose of the World*

*S: Signs*

*SB: The Structure of Behaviour*

*SNS: Sense and Non-Sense*

*VI: The Visible and Invisible*

*WP: The World of Perception*

Texts by Don Ihde

*BT: Bodies in Technology*

*ET: Existential Phenomenology*

*IR: Instrumental Reality*

*PT: Philosophy of Technology: An Introduction*

*TL: Technology and the Lifeworld*

*TP: Technics and Praxis*

## Chapter 1: Introduction

### 1.1 Background to the problem

Space, as a notion that simultaneously effects and affects our everyday lives, has perhaps never been so apparent in both academic and professional practices as in the last few years. In addition,...,this new multidimensional spatial discipline will only increase its presence in our daily discourse. Knowledge, or what we process as knowledge information, has, and always will be in constant evolution. Space has been at the forefront of almost every major discovery starting from Isaac Newton's witnessing the force of gravity through the falling of an apple, till Alexander Graham Bell's path to the telephone. But throughout this historical development, space remained within a Cartesian paradigm. (Vollebregt, 2005:1)

The substantial difference between how we experience lived built space in our everyday lives and how we conceive of built space when we 'read' the representation of lived space on orthogonal graphic projections such as plans or maps is a problem that occurs particularly in the field of architectural theory and practice. As a lecturer in the School of Architecture and a practising architect, I have long reflected on these dichotomies between the theory and practice of architecture. The theory of building techniques, methods, materials and their application in design processes are intrinsically interwoven. However, students, especially in their first and second years of study, appear to have great difficulty grasping the underlying inseparability of 'aesthetic design' and 'technology', of creative freedom and material constraints.

Building materials and the way these materials interact and are connected (construction principles) are represented as symbols on paper. It usually takes a few years for students to grasp *how* the symbolic representations of construction techniques and practices relate to contemporary building practices in our lifeworld, and that these representations are more than abstract symbols and acquired drafting techniques for creating images as 'works of art' in themselves.

A number of symptoms reveal that the problem of grasping the connection between the real construction processes on a building site (where 'real' stones, concrete, timber and steel are systematically constructed according to particular principles and in a specific order), the building's design and its representation on paper is present (in most instances, the problem can be and usually is overcome through practice and experience).



The first symptom is that a student draws construction details ‘methodically’ the wrong way around, namely from the top of a building downwards: in reality, foundations are cast before walls are built onto them, after which the roof trusses are laid onto the wall plates and anchored, and so on.

The second symptom is that the student is unable to indicate or draw his or her own bodiliness and its relations to things in everyday life, or answer a general question in this regard. So, for instance, the student is not able to say what the approximate height and width of a door opening or the size of a bed are, or at what height door handles are attached to doors. Every day, we encounter the small step between the outside and inside threshold of our front entrance and the difference in the quality and duration of natural light and warmth in our houses during summer as opposed to during winter, and so forth, but we fail to put these relations in the forefront of our consciousness.

Another symptom is that the student does not reflect on his or her personal lived experience(s) of built space, which can be explicitly used in designs, for instance, why did I feel uncomfortable in that building foyer? How does that part of the building overhang protrude so far without any support? Why do I always lose track of which entrance I have used in that particular shopping mall? The situations mentioned above may seem unrelated, as there seems to be a disjunction between our everyday spatial experiences, and the conception, reading and drawing of plans and maps. However, building design and construction principles are fundamentally inseparable - a contrary perspective which I believe affects students’ conception and representation and ultimately their experience of built space.

Architect Kimberley Dovey (1993:249) claims that the design translation between lived space and geometric space causes confusion, which can be overcome by giving priority to lived space. However, he does not develop this concept further to provide an explanatory solution for design praxis. As the modern paradigm in Western architecture is Euclidian-Cartesian,<sup>1</sup> I believe that this state of affairs is manifestations and symptoms of which the reason(s) can be explicated and solved philosophically.

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<sup>1</sup> This is the reigning paradigm in architectural design. There are, however, anti-dualistic approaches to Western architecture, as described by Frascari (1991), Pérez-Gómez (1983) and Pallasmaa (2000, 2005b).



The question arises why we have to understand the phenomenon of lived space if it is so intrinsic to our embodied being in the lifeworld.<sup>2</sup> In 1897, philosopher and mathematician Henri Poincaré set out the problem of space for the twentieth century in his essay ‘The Relativity of Space’. Poincaré held that space is irreducibly relative to any position in which the ‘I’ would be situated and accounts for as a definite ‘here’; that is, there is no absolute or fixed point in which I am situated in space. Poincaré explained the principle by means of an example: I am at a specific place on a certain day and I have to meet someone the next day at the same place, for example, at the Place de Panthéon, but this place will have rotated with the earth by the next day.

No one will be aware of it if, in the meantime, the universe has increased a thousand times, because the world will still remain similar to itself, in line with Euclid’s theory on ‘similitude’. We would not perceive the changes in scale, since from our point of view everything has remained the same. It follows that I am only able to determine that specific place by measuring a certain distance from the Place de Panthéon and myself; the tool for measurement is my own body. In this case, Poincaré (1897:5) says,

[t]here is no direct intuition of magnitude..., we can only arrive at the relation of the magnitude to our measuring instruments. Accordingly, we could not have constructed space if we had not had an instrument for measuring it....[T]hat instrument to which we refer everything, which we use instinctively, is our own body....that serves us...as a system of axes of co-ordinates.

The human body possesses the necessary structures of intelligence to characterise space as having three dimensions (Poincaré, 1897:12). These bodily structures are, according to

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<sup>2</sup> The term ‘lifeworld’ was coined by the German philosopher Edmund Husserl, and his idea of the lifeworld became known in France mainly through the works of Maurice Merleau-Ponty, who studied Husserl’s unpublished texts at the Husserl Archives in Louvain in 1939 (Spiegelberg, 1965:159). For Husserl, the lifeworld (*Lebenswelt*) was not identical to empirical reality, nor was its structures immediately accessible to a person in the ‘natural attitude’. Therefore, a ‘first reduction’ was necessary (the suspension of scientific belief or prejudice) to enable an analysis of the lifeworld’s structures (Spiegelberg, 1965:160). However, according to Spiegelberg, it became clear from the specific arrangements of Husserl’s 1935 papers of his manuscript that he placed ‘mundane phenomenology’ before his text on reduction. Thus, the lifeworld encountered before the transcendental reduction was to be ‘thoroughly’ inspected, analysed and described. Derived from Husserl’s textual arrangement, the reduction was to ‘lead us back from the structures of the lifeworld to the hidden functions of intentionality’ (Spiegelberg, 1965:161). Each lifeworld with its particular phenomena was part of a ‘horizon’ or ‘fringe’ which formed part of the essential ‘make-up’ of the phenomenon under study. Particular or specific ‘horizons’ were parts of the ‘comprehensive horizon of a world as their encompassing frame of reference, without which any account of even a single perception shall be incomplete’ (Spiegelberg, 1965:161). This world, according to Husserl, was the world as experienced by a living subject and from his or her perspective. Thus the lifeworld was subjective and relative. Husserl believed that science had forgotten the subjective consciousness which developed it and that science was rooted in the lifeworld. It was therefore philosophy’s task to restore the balance between (the natural sciences’ task to achieve) maximum objectivity, and simultaneously starting from the subjective lifeworld (Spiegelberg, 1965:162). Husserl’s explication of the ‘lifeworld’ is also described by Brockelman (1980:44-

Poincaré, ingrained networks of associations of movement in restricted (near) and extended (far) space. The muscular sensations associated with movement give us a representation of successive bodily movements that require the intervention of memory, as these successive movements have a starting point, which is the initial position of the body. Our bodies possess a ‘multiplicity of parries, and the resulting co-ordination, that is space’ (Poincaré, 1897:8).

It follows that, if unconscious memory of successive bodily movement is ‘necessary as the genesis of the notion of space, this memory can go back’ to an indeterminate original starting position. According to Poincaré (1897:7), our bodily intuition of straight lines or of distance and of the homogeneity of extended space is the consciousness we have of our ingrained associations of ‘parries and multiple remedies’ that are detectible in new-born infants; therefore, it is part of our species’ make-up. Geometrical postulates are thus born from our living in the world; it is a science based on experience. Poincaré (1897:13) claims that we have created the space that geometry studies, but we have also adopted it for our lifeworld.

From the above summary, we can see that Poincaré laid the foundation for the contemporary study of human beings’ experience and perception of space, along with using tools and techniques for its measurement in the lifeworld. The philosophers Maurice Merleau-Ponty and Don Ihde have built on these foundations in their phenomenological<sup>3</sup> analyses of the relation between human beings and their lifeworld, as well as of the roles that technology plays in this relation.

## 1.2 Thesis statement

In this dissertation, I perform a textual study of the embodied human being as an inhabitant of built space and relate the human body (as explicated by Maurice Merleau-Ponty) to our technologically mediated perception of our lifeworld (as explicated by Don Ihde) to analyse the light that this relation throws on our experience(s) of built space.

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49). Merleau-Ponty and Don Ihde’s developments of Husserl’s ideas of the lifeworld are examined in detail in later chapters.

<sup>3</sup> Phenomenology as a method of enquiry uncovers meaningful structures and the essences of human perception and experience in the lifeworld.



### 1.3 The aim of the study

The purpose of this study is to understand our experience of everyday lived, built space better by examining the body-subject-world relation postulated by Maurice Merleau-Ponty's philosophy of existence<sup>4</sup> (existential phenomenology) and Don Ihde's philosophy of technology in order to explicate, in a comparative manner, the ways in which technology mediates our experience and perception of our lifeworld.

### 1.4 Theoretical background

Both Merleau-Ponty and Don Ihde used the phenomenological method to describe the relations between human beings and the world. However historically and geographically removed from each other Merleau-Ponty and Ihde were, both were influenced by the work of Edmund Husserl, the founder of phenomenology as a method and a movement. It is therefore important to look at a brief historical outline of Husserl's phenomenology before studying Merleau-Ponty and Ihde's own development and applications of phenomenology in their philosophical exegeses.

#### 1.4.1 Phenomenology

##### 1.4.1.1 *The phenomenological movement: a summary*

The rapid development of empirical science at the start of the twentieth century resulted in a philosophical-critical stance towards science's tendency to operate independently from a person's being. Philosophers regarded it as their task to remind empiricists that the sciences were founded on the lived world, which empiricists tended to take for granted. With regard to the position of the sciences, philosophical circles in Europe reacted to what was called a 'crisis' in the European sciences. Subsequently, phenomenology originated at the start of the twentieth century. It was a method to be used to seek epistemological truth. The movement was founded by German mathematician and philosopher Edmund Husserl, who was born in 1859 and died in 1938 (Spiegelberg, 1965:21).

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<sup>4</sup> Merleau-Ponty ([1959] 2005:129) preferred the term 'philosophy of existence' to 'existentialism', because the term 'existentialism' was strongly associated with French philosophy after World War II, especially with the philosophy of Jean-Paul Sartre. Existentialism, according to Merleau-Ponty, was tied to a long tradition of contributing thinkers other than Sartre, such as Kierkegaard, Husserl, Heidegger and Marcel.



Husserl was not the first philosopher to use the term 'phenomenology' (Spiegelberg, 1965:11,12,14).<sup>5</sup> He was influenced by his teachers Karl Stumpf and Franz Brentano, but on the basis of his development of phenomenology as a movement, Husserl still stands out today as the central figure in the history of the Phenomenological Movement and the development of phenomenology as a method (Spiegelberg, 1965:6,21). Husserl's concept of phenomenology resulted from his quest for a philosophy 'as a rigorous science' (Bakker, 1977:82). Phenomenology's scientific character lay in the analysis of the acts of consciousness and the descriptions of the world as it was lived through (or 'immanent *Erlebnis*') (Bakker, 1977:82,83).

During the 1930s, the Phenomenological Movement gravitated to France where Gabriel Marcel, Sartre and Merleau-Ponty 'invigorated' phenomenology, partly due to their interpretations (and mis-interpretations) of Scheler's, Heidegger's and Husserl's texts.<sup>6</sup> They combined and transformed phenomenology into an 'existentialist' version of the movement, which 'humanised and socialised phenomenology' (Spiegelberg, 1965:22-23). David Carr (1987:vii) writes that Husserl's spirit was better served by those less concerned with the letter of his work, namely Heidegger, Sartre, Merleau-Ponty and Ricoeur (Carr, 1987:1,2; Moran, 2005:18,20; Spiegelberg, 1965:125,152).

The greatest wave of Husserlian influence in twentieth century European philosophy occurred after World War II. Phenomenology crossed the Atlantic in the 1960s to be established as a tradition in American philosophy. The term 'phenomenological' gave way to the epithet 'continental' philosophy, since many philosophers held that the most vital and interesting work during the second half of the twentieth century in Europe had its origins outside phenomenology (Carr, 1987:2,3).

Merleau-Ponty's phenomenology cannot be properly understood without understanding the basic characteristics of Husserl's phenomenology, especially Husserl's later version of phenomenology, which Merleau-Ponty held to be definitive (Matthews, 2002:23). Let us therefore look briefly at Husserl's phenomenological method.

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<sup>5</sup> Spiegelberg writes that the German Phenomenological Movement never considered Hegel to be a phenomenologist, although Hegel wrote *Phenomenology of the Spirit* in 1807. The lineage of the text can be traced back to Lambert, whose text of 1794 was the first recorded documentation of the term 'phenomenology' as such. However, French phenomenologists included Hegel in the phenomenological school.

<sup>6</sup> In that order. Spiegelberg (1965:22).

#### 1.4.1.2 Husserl's phenomenological method: a brief outline

Husserl's phenomenology was not intended to be regarded as an empirical science such as psychology or physics, but rather, like empiricism, to proceed rigorously according to an established method (Matthews, 2002:25). The main features of Husserl's phenomenology were, firstly, the intentionality of consciousness, secondly, the descriptions of the structures of consciousness and, thirdly, working under the phenomenological reduction after performing the *epochē*.<sup>7</sup> Phenomenology examines the act in which correlates are given (Husserl, [1950] 1999; 'Second Meditation' and 'Third Meditation') - correlation is the relation between perception and that which is perceived (Bakker, 1977:83). These features of Husserl's phenomenology are expanded into a methodological sequence.

After rejecting psychologism (which held that logical principles were the description of 'laws of thought'), Husserl established that one can study human consciousness by studying its relation to objects. Logical principles are 'ideal objects' that exist. However, they exist as non-material entities that have meanings or 'essences'. Husserl's phenomenology aimed to establish the relations between these essences (Bakker, 1977:102-103).

To study meanings or essences, Husserl drew on the philosopher Franz Brentano's notion of intentionality; that is, a 'directedness towards an object [non-material or material] as a necessary feature of consciousness' (Matthews, 2002: 24-26; Spiegelberg, 1965:107).<sup>8</sup> For instance, if a child says that the child is afraid of the dark, the child is afraid of *something*, although 'the dark' is not a material object. These 'ideal objects' are not the 'subjective' contents of one's mind that can be studied empirically as introspective psychology believed they can be, but it is rather the 'transcendental subjectivity' of a necessary relation (the transcendental 'ego') by which the object is 'intended' (Matthews, 2002:24).<sup>9</sup>

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<sup>7</sup> Spiegelberg (1965:134) describes Husserl's thought on the phenomenological reduction that Husserl divided into at least two phases. The first phase is the eidetic reduction in which a 'reduction of mere facts to general essences' takes place. Spiegelberg argues that Husserl adopted the Platonic word *eidos* to his thinking on 'ideation' or 'intuiting essences'. The second phase is the *phenomenological reduction proper*. The aim was to 'suspend all belief in existence that accompanies our everyday life and even our scientific thinking...' (Spiegelberg, 1965:134-135), in order to focus '...on the concrete phenomenon in all its aspects and varieties, intuit its essence, analyze and describe it without any consideration of its reality' (Spiegelberg, 1965:135) Husserl used the word 'bracketing' for the temporary suspension of beliefs or pre-conceptions that were taken for granted (Spiegelberg, 1965:135).

<sup>8</sup> The object was then studied by 'bracketing' out the natural attitude. I define the term 'natural attitude' in the main text.

<sup>9</sup> Bakker (1977:83) calls the object an act of consciousness; the object is constituted in the act of consciousness which is intentionally directed at the object.

The method by which these 'ideal objects' followed a sequence. The study starts with the 'natural attitude', which is our common assumptions or questions about the 'real' existence of the things and the world around us (Matthews, 2002:25). This 'natural attitude' must be temporarily 'bracketed' or 'suspended'. Husserl calls this suspension *epochē* as part of the process of the phenomenological reduction. It is then possible to regard the phenomenon exactly as it appears to our consciousness. That is, the *epochē* 'brings about a neutral act that lacks the specific *doxic* position contained in its non-neutral reflective counterpart' (McKenna, 1997:178). Thus, the object of 'non-neutral' reflection in *noematic* reflection is the object that appears to our awareness of it (which is a 'straightforward' act) (McKenna, 1997:178). This enables us to identify or to 'intuit' the 'essence' and its relation to the mode of consciousness we have of it. Husserl ([1950] 1999:70-71 (§34)) calls this phase of moving from instances to essences the 'eidetic' intuition.

For Husserl ([1950] 1999: 40-41 (§17)), general essences such as the essence 'colour' (say, 'red') cannot be abstracted (and therefore they lose the capacity for universalising) from their specificity (say, a woolly red carpet). 'Red' is given based on our 'intuitive (a consciously active) apprehension' (Spiegelberg, 1965:106) of this particular woolly carpet. However, the 'act of ideation (which Husserl called *Wesenschau*) is an original type of experience' (Spiegelberg, 1965:106) and it requires a free (and methodical) variation of particular representative examples for us to understand the essential relationships between the general essences. Within these particular and general essences, knowledge can be verified (Spiegelberg, 1965:118).

Different forms of consciousness relate to their intentional objects in different ways (Matthews, 2006:7,8). For example, to 'imagine', 'fear', 'perceive' or 'hate' the 'ideal object' does not change the object, but the essences of the forms of consciousness are related differently to the object intended (Husserl, [1950] 1999:36-37,45 §15, §19). In other words, each mode of consciousness results in different kinds of behaviour in terms of the object. The study of the relations between the essences is known as 'transcendental phenomenology' (Matthews, 2002:25).

Phenomenology is descriptive. This means we have to study and describe the phenomenon exactly in its appearance (Husserl, [1950] 1999:35 §15) - as it appears to us after the phenomenological reduction - rather than give causal explanations of the phenomenon or phenomena, as introspective psychology does (Husserl, [1950] 1999:9).

Husserl's position regarding the world, according to Carr (1987:3) marks a significant turning point in the history of appearance-reality distinction. Carr believes that there is ontological neutrality beyond realism and idealism:

The decisive positive contribution of Husserl's concepts is that of “world”, together with “life world”...both closely tied to the notion of intentionality and together linked to a certain philosophical attitude, that of *epoché*. (Carr, 1987:3)

In the following chapters, we shall see how Merleau-Ponty and Don Ihde adopted and adapted the main features of Husserl's phenomenology.

## 1.5 Preliminary literary study

A literary survey revealed that a great amount of research has been done separately on Merleau-Ponty's and Don Ihde's philosophies. Apart from studies preceding and following the works of both these philosophers, many texts on technics and/or embodiment have been written. Moreover, quite a number of texts have been published on the relation between technics and embodiment. Most of the existing research focuses on the fields of the medical sciences, education, gender studies, anthropology, cultural studies; but there are also some studies relating to artificial intelligence (AI) and computer hard- and software technologies. Although they may relate to the experience of built space, I have chosen to limit this study to my thesis statement.

Built space is not limited to architecturally designed spaces, and still less to contemporary Western urban settings. In this study, I approach the issue of built space from different points of view; that is, from our everyday unreflective experience; sometimes from an architectural point of view; and I reflect on both philosophically. My 'natural' attitude is that of a person (a body) in a Western cultural urban setting within the horizon of South African landscapes with their prolific cultural diversity: this forms part of my unreflective experience of the world.

A huge body of published texts focuses on the determining the roles of political, economic, ethical and social structures in the physical manifestation of our built environment. Foucault's texts on institutionalised architecture, such as that of the panopticon, and Elizabeth Gotz's texts on gendered spaces are only two examples. Barthes, Derrida, Lefebvre, Baudrillard and Arendt (in no specific order) are only a few of many other philosophers who are endlessly cited in architectural debates.



Architectural theorist Peter McCleary applies Heidegger's, Ihde's and Ortega's philosophy of technology to architecture and the building industry. He briefly refers to Ihde's application of one of Merleau-Ponty's ideas (McCleary, 1988:4-9). However, I believe that McCleary's interpretation of Merleau-Ponty and also Ihde's ideas of 'transparency' and 'opacity' is not what either philosopher had in mind in their own explications thereof: McCleary reduces 'transparency' to a 'lo-tech' manner of building (artisans and craftsmen are seen as dialectically related to nature) and holds 'opacity' to be a mode of production. McCleary relates the concepts of transparency and opacity in a metaphorical manner to the relation of nature and culture (not unlike Marx and Engels's ideas): he argues, for instance, that 'opacity' denotes our physical 'divorce' from nature due to industrialised processes.

While these aspects of McCleary's interpretation might be valid, in the next two chapters, I discuss what I believe Merleau-Ponty and Ihde meant in their explications of 'transparency' and 'opacity' and I shall then relate it to the building industry. Except for aspects in the texts written by Ihde himself, only one philosopher has thus far compared Merleau-Ponty's and Ihde's philosophies as the main theme of his argument: Philip Brey wrote two texts in which he presents a comparative analysis of Ihde's and Merleau-Ponty's concepts of embodiment (Brey, 2000b:59-78). He wrote that, in view of the behavioural change that technology requires in an embodiment relation, an increased knowledge of our own bodies is established. He criticises Ihde's analysis of embodiment relations as too limited in its scope.

Apart from obvious and subtle differences between Don Ihde and Merleau-Ponty's work, crucial aspects of their work are in consonance with one another. For example, Ihde has appropriated Merleau-Ponty's anti-dualist philosophy (that is, the concept of the mutual constitution of the embodied subject and lifeworld). Merleau-Ponty and Ihde's philosophical approaches fall within the tradition of philosophy that Ihde calls 'praxis philosophy'.<sup>10</sup> Furthermore, both philosophers place the subject in the lifeworld and discuss aspects of spatial perception and spatial experience; and both philosophers examine artefacts and instruments and their relation to the body-subject-world dialogue. While Merleau-Ponty discusses the use of instruments and artefacts, his ideas on

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<sup>10</sup> Ihde (1983: 9) defines 'praxis philosophy' as a set of traditions within philosophy that have already addressed technology at a fundamental level. He includes Critical Theory, existentialism, phenomenology and certain branches of American pragmatism with the conviction that action 'precedes or grounds conception' as a starting point.



technology as implied in his descriptions in *Phenomenology of Perception* (PP:143-145) and are developed further and more rigorously by Don Ihde.

Although Merleau-Ponty's and Don Ihde's own concepts have evolved through their careers, these also differ in various ways. Philosophers such as Dreyfus (1996, 1999) and Verbeek (1998, 2005a, 2005b) have examined technology as mediator between body and world. Verbeek primarily refers to Don Ihde's phenomenological analyses, while Dreyfus focuses on embodiment and skill acquisitions from a third person, objective point of view. Ihde's explications of human-technology relations remain mostly unchanged in Ihde's *oeuvre*, although Ihde develops more explications and descriptions, based on the lifeworld.

Since ancient times, extensive texts have been written on architecture, space, place, shelter and geography and on the evolving nature of, and different relations between, culture and nature - of which the built environment as a whole was and is one manifestation of many expressions. In this study, I regard built space as a complex of connected and independently changeable cultural artefacts that play different roles in the relation between the body-subject and lifeworld.

Architectural theorist Pierre von Meiss (2004:21) examines building typologies in terms of 'what buildings should be or do'. This is only one of a myriad of instances in which 'concrete' aspects of lived space are reflected on. Apart from the experience of lived space and the concrete aspects of lived space, we experience built space aesthetically,<sup>11</sup> an aspect to which I refer briefly, since the philosophy of aesthetic experience requires an exegesis that falls beyond the scope of the study.

Casey defines 'place' in consonance with Merleau-Ponty's 'lived body': 'only the body holds together, in one coherent entity, the sense of place, the past pertinent to that place (that is, via body memories), and the orienting power which place requires. The body is the only aspect of our being-individual or collective-capable of performing place, that is to say, making place a living reality' (Casey, 2001:718). Thus, place (which is built space) is not fixed: 'In the end, I assimilate place to "event," that is to say, to something that reflects the vicissitudes of becoming, whether in history or mind or social practice' (Casey, 2001:719). Casey's descriptions of (built) space and our bodily inhabitation thereof is based on Merleau-Ponty's (amongst other philosophers) work. Detailed explications of the relation between space and place are excluded from the scope of this study.

I apply Merleau-Ponty's concept of embodiment and spatial perception and Ihde's concept of human-technology relations and the subsequent transforming of experience due to technological mediation to my phenomenological explication of built space.

## 1.6 Research design

I present this qualitative textual study as a historical-thematic study, based on descriptive and interpretive data of both philosophers' work, per chapter. This type of research presupposes a hermeneutic approach. In the study, I take an existential and hermeneutic-phenomenological stance. Due to the inductive and evolving methodology of qualitative research, Creswell (2003:144) says, definitions of terms occur as they emerge in the text. The dual character of many of the definitions in this study supports Creswell's statement. I discuss many philosophical terms, concepts or principles at greater length.

There are definitions of the same terms or concepts that might differ to a lesser or greater extent between different philosophers, and may even have evolved during each philosopher's careers, which I highlight. This is done at the first occurrence of the term as used by each author, unless a detailed analysis of the concept follows. To avoid confusion, explanations are often given in footnotes. A definition could also form part of or become a major theme (or more than one theme) in the study. Due to the character of this inquiry, some definitions, concepts or themes flow into one another, overlap or are even intertwined in my construction of the greater *Gestalt* of the study. However, I guide the reader and endeavour to maintain clarity and to avoid repetition.

The creative contribution of this study lies mainly in the manner in which I relate the concepts and ideas. Firstly, I set out the main concepts of each philosopher; and secondly, I relate the philosophers' concepts. Thirdly, I test their ideas in a comparative manner. Lastly, I synthesize Merleau-Ponty's and Don Ihde's philosophies in the study of how we experience built space.

I explicate Merleau-Ponty's phenomenology in Chapter 2, focusing on the perceiving human body and experience in and of the world, followed by an explication of Don Ihde's analyses of human-technology-world relations in Chapter 3. I compare Merleau-Ponty and Don Ihde's philosophies in order to draw up a theory on the body as inhabitant of built space, and I derive from that what the possible implications are for architectural education. I apply

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<sup>11</sup> as described by Bachelard (1969), Pallasmaa (2005), Casey (2001), Heidegger (1971) in addition to the primary texts.

both inductive reasoning and deductive logic to arrive at the main conclusion which is synthesised in Chapter 4. I conclude the study in Chapter 5 with closing remarks and suggestions for future research..

## **1.7 Significance of the study**

The uniqueness of this study lies in the analysis and synthesis of the phenomenology of bodily perception and experience as explicated by Merleau-Ponty and expanded upon by Don Ihde's notion of technologically mediated experiences and perception of our lifeworld. This is the first comparative study on Merleau-Ponty's and Don Ihde's philosophies that is applied to the perception and experience of built space.



## Chapter 2: Maurice Merleau-Ponty: 'I am my world'

### 2.1 Introduction

The content of this chapter is intended to form a *Gestalt* in which the structures and interrelations between the human body and lifeworld become apparent in an endeavour to find out what it means to inhabit built space. In this chapter, I show that Merleau-Ponty's philosophy already explicitly and implicitly contains the seeds of the notion of a mediation of perception. This mediation arises from the acquisition of the habit of appropriating artefacts (which are extensions of the body's natural capabilities) to form part of the cultural world that is projected around us, and the acquisition of skill in appropriating artefacts. This discussion of Merleau-Ponty's philosophy then serves as a basis for the exploration in the next chapter of how Don Ihde's philosophy relates and compares to that of Merleau-Ponty.

The challenge is to present Merleau-Ponty's main ideas (for example, 'I am my world') in such a way that the themes are interwoven in the discussion without having to jump back and forth between the themes and without having to repeat aspects from a historical development perspective. Two approaches to presenting Merleau-Ponty's ideas are possible. The first approach would be to follow each theme and describe Merleau-Ponty's development of that theme in a historical-chronological order. This method might complicate the study, because various themes relate to each other differently at different stages in Merleau-Ponty's philosophical career. The second approach is to present Merleau-Ponty's ideas by interweaving the themes in such a way that the 'line of thought' forms a whole. I chose to apply this approach in order to avoid thematic repetition. (I evaluate the success of this approach in the final chapter of this study.)

### 2.2 Maurice Merleau-Ponty in context and the start of his career in phenomenology

Maurice Merleau-Ponty (1908-1961) studied philosophy from 1926-1930 at the *Ecole Normale Supérieure* and taught philosophy for five years before returning to the *Ecole Normal* to start his doctoral studies while tutoring. He submitted his "preliminary thesis", *La structure du comportement (The Structure of Behaviour)* in 1938. At the outbreak of the Second World War, Merleau-Ponty was summoned for military duty and served the French army for one year until 1940, after which he resumed his teaching career and was

appointed at *Lycée Carnot*. In 1944 he took over from Sartre at the *Lycée Condorcet*. Merleau-Ponty worked on his major doctoral thesis, *Phénoménologie de la perception* from 1942-1945 (Moran, 2000:392-395). Merleau-Ponty held a chair of child psychology at the *Sorbonne* from 1949 until he was appointed Chair of Philosophy in the *Collège de France* in 1952 (Moran, 2000:400) where he continued to lecture until his premature death.

The development of Merleau-Ponty's career in phenomenology was inspired by Henri Bergson's intuitionist metaphysics, on the basis of which he encountered Husserl and Heidegger at a Sorbonne course presented by Georges Gurvitch in the late 1920s (Spiegelberg, 1982:547). During his studies (from 1926 to 1930) at the *Ecole Normale Supérieure* in Paris, he befriended Jean Paul Sartre and Simone de Beauvoir. He co-published *Les Temps modernes*, a journal on politics, philosophy and literature, with Sartre from 1945 to 1952 (Moran, 2000:398). Although Merleau-Ponty and Sartre agreed on several aspects of existential philosophy, their political differences eventually affected their friendship (Matthews, 2002:8-12).<sup>12</sup>

Merleau-Ponty's main interest was gaining an understanding of the relation between consciousness and nature (organic, psychological and social nature, in other words, the relation between human beings and the world) and examining the nature of our relation to others, to society and the world. He wanted to find out what reality and truth are, and how we experience the world. The dominant fields in the history of Western philosophy that dealt with questions on reality and truth at the time were objectivism (also known as realism), empiricism, naturalism, behaviourism and mechanism and intellectualism (also known as idealism), rationalism and, contemporaneous to Merleau-Ponty, neo-Kantianism (as taught by Brunschvicg) (Moran, 2000:392; Bakker, 1965:6,7). Although Merleau-Ponty stresses the importance of the subject, he opposes the Enlightenment conception of human subjectivity which implies that subjectivity is independent from the human being as a physical historical, political and social being (Moran, 2000:392).

In *The Primacy of Perception* (PrP:20), Merleau-Ponty adopts Brunschvicg's proposition that science cannot be closed in on itself, because it is based in the pre-scientific world. In his first major text, *The Structure of Behaviour* (SB, first published in 1942), Merleau-Ponty criticises physiological psychology (especially the behaviourist notions of Watson and Pavlov

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<sup>12</sup> Merleau-Ponty and Sartre did not agree on many aspects of existentialism, especially Sartre's notion of freedom, history and his concept of 'in-itself' and 'for-itself', which Merleau-Ponty explicated in *Phenomenology of Perception* (PP, first published in 1945).

which were prominent at the time, and which hold that behaviour is ‘a kind of thing’) but also Bergson’s vitalist<sup>13</sup> account of human action (Moran, 2000:393).

### 2.2.1 Merleau-Ponty’s criticism of empiricism and intellectualism

Merleau-Ponty’s project to understand the relation between human beings and the world began with his text *SB* and his subsequent major text *PP*, in which he describes the results of objectivism and intellectualism obtained from research in biology and psychology at that time. Their results contradict both approaches’ ontology (*Stanford Encyclopedia of Philosophy*, 2004:1-29), which is based on *a priori*s of Cartesian philosophical dualism. Merleau-Ponty claims that empiricism had by then reached its limits, because the empiricists did not take into account lived experience. Not even *Gestalt* psychology could provide Merleau-Ponty with a satisfactory solution (Spiegelberg, 1982:574; *Stanford Encyclopedia of Philosophy*, 2004:1-29).

Merleau-Ponty criticises empiricism on the grounds that it conceals the basic phenomena that also constitute perception. For an empiricist, for instance, ‘the cultural world’ or ‘human world’ owes its distinctive form to the transfer and projection of memory, so that it is only by accident that the human world has any meaning. Merleau-Ponty’s rejection of empiricism is based on empiricist assumptions that ignore three central aspects of human existence and experience, namely intentionality, the findings of *Gestalt* psychology, and the fullness of embodied perception (Gordon & Tamari, 2004:14; Matthews, 2002:40,53,80). Merleau-Ponty concludes that empiricism ‘impoverishes’ and distorts experience and ultimately falsifies the natural world in its representation of the concept of human perception (*PP*:22-25).

Merleau-Ponty argues that scientific thought is anchored in reality. However, he criticises science’s manipulation of this reality. Therefore, Merleau-Ponty proposes a return to a unified experience that precedes the division between subject and object. He believes that we should view concrete reality and philosophical thought from the singular perspective of original human existence and (pre-scientific) lived experience (Bakker 1965:14, 1977:393). Moreover, for Merleau-Ponty, perception is grounded in the concrete world: this is fundamental to the knowledge of truth (*PrP*:3; *SB*:4,5; Bakker, 1965:11, 1977:363).

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<sup>13</sup> The belief that reality is organic and not mechanical, that biology and history are more central than physics and that life is objective and transcends the subject (Inwood, 1995:901).

It was important for Merleau-Ponty to emphasise the idea that there is no ‘absolute’ knowledge and to argue against the ‘traditional’ conception of truth, which sees truth as a fixed, transparent system formulated from the ‘thing’ as corresponding to or coinciding with the ‘idea of the thing’ (*adaequatio rei et intellectus*) - as idealism (intellectualism) holds (Bakker, 1965:14, 1977:393). Truth, according to Merleau-Ponty, situates itself in situations found in our constant search for dialogue with others (Bakker, 1977:393). Moreover, reality, consciousness and the certainty of ideas are all based on pre-personal and pre-self-conscious perception.

## 2.2.2 Building on the major features of Husserl’s phenomenology

Merleau-Ponty discusses each main feature of Husserl’s development of his phenomenology in the preface to *PP*, notably Husserl’s later philosophy, especially his texts on the lifeworld and inter-subjectivity,<sup>14</sup> which greatly influenced Merleau-Ponty’s philosophical thought. In the introduction to *PP*, Merleau-Ponty affirms most of Husserl’s ideas on phenomenology, while simultaneously offering re-interpretations of these ideas. For Husserl, phenomenology is the disclosure of the world; and phenomenology provides its own foundations (*PP*:xx-xxi). Husserl believes that looking for the world’s essence is not about looking for an idea, but rather about looking for what the world’s essence is as a fact for us before thematisation (*PP*:xv).

Husserl’s notion of a phenomenological reduction has been widely criticised as transcendental and idealistic, but Merleau-Ponty argues that by revealing the essences of phenomena, Husserl’s phenomenological reduction is far from being a process of idealistic thought; for Merleau-Ponty, the eidetic method is ‘the method of a phenomenological positivism which bases the possible on the real’ (*PP*:xvii). The eidetic reduction’s aim, for Merleau-Ponty, is ‘to make reflection emulate the unreflective life of consciousness’ (*PP*:xvi). Phenomenal reduction, according to Merleau-Ponty, belongs to existential philosophy, and Merleau-Ponty places ‘being-in-the-world’ (as developed in Heidegger’s text *Sein und Zeit*) as appearing only against the background of Husserl’s reduction (*PP*:xiv). In effect, Merleau-Ponty grounds Husserl’s notion of ‘essence’ in our existence in the world when he writes: ‘Phenomenology as a disclosure of the world rests on itself, or rather provides its own foundation. All cognitions are sustained by a “ground” of postulates

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<sup>14</sup> As developed by Husserl ([1950] 1999:108-151) in his ‘Fifth’ Meditation’.



and finally by our communication with the world as primary embodiment of rationality’ (PP:xx-xxi).

### 2.2.2.1 Merleau-Ponty’s idea of metaphysics

What Merleau-Ponty means by ‘metaphysics’ differs from the ‘traditional’ conception of metaphysics: the traditional conception of metaphysics is based on the theory of a double reality, namely the dualism between the concrete experience of reality on the one hand, and thought that transcends the sensible world to situate reality at a higher or deeper level from whence the concrete experienced world can be explained on the other hand (Van Huyssteen, 1966:75). Merleau-Ponty ‘strips’ classical metaphysics of idealism by grounding consciousness in contingent and temporal experience. By virtue of the ambiguities of corporeal experience, his metaphysics ‘refutes’ fixed notions or systems (Bakker, 1965:14, 15) and takes a different stance to reality: by means of the philosopher’s ‘wonder’ about which Merleau-Ponty writes, the natural world (as taken for granted and assumed to be transparent) is to be suspended. Phenomenological reduction makes a suspension of the natural world possible<sup>15</sup> in order to reveal the ambiguities and contingencies of our lives and experiences (Bakker, 1965:30-33; Van Huyssteen, 1966:76).

The reduction, for Merleau-Ponty, is that through which one becomes aware of one’s relation to the world and to others: ‘Reflection does not withdraw from the world.... it steps back to watch the forms of transcendence fly up like sparks from a fire; it slackens the intentional threads which attach us to the world and thus brings it to our notice’ (PP:xiii). We cannot completely bracket out our natural attitude; indeed, Merleau-Ponty believes that a complete reduction is impossible - something that Husserl recognises in his later philosophical thought.

Husserl admits that our experience of the world and of the other is paradoxical - it is our openness towards the world that reveals us in a perspective and in a situation (which is embodied), and thus we are visible to others (Toadvine, 2008:23). In *Nature: Course notes from the Collège de France (N)*, Merleau-Ponty points out that in the last ten years of Husserl’s career, Husserl argued that the idealised world ‘is constructed on a pre-reflexive

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<sup>15</sup> Merleau-Ponty criticises Husserl’s earlier conception of the phenomenological reduction as being idealistic in the sense that in Husserl’s transcendental idealism the world is treated as an indivisible unity of value shared by everyone. Thus, the subjective consciousness cannot be distinguished from any ‘other’ consciousness. This idealistic view is that all consciousness is immediately in touch with the world as a structural unity from whence the representation of a universal truth is available to all (PP:xi,xii).

world' - the lifeworld<sup>16</sup> (N:72). For Husserl, the *cogito* has to reveal a person in a situation and include the person's incarnation within some nature and history, which means that transcendental subjectivity could be an inter-subjectivity<sup>17</sup> (PP:xiii).

Merleau-Ponty argues for a return to the everyday world, the homeland of knowledge and truth from which science as 'a derivative sign-language' was abstracted (PP:ix). In this everyday world, reflection (the philosopher's 'wonder') would reveal the human being in the world, giving us a deeper understanding of the meanings of 'artificial' or constructed scientific theories which are ultimately rooted in our everyday lived experience (Matthews, 2002:29). Merleau-Ponty writes in *Sense and Non-Sense* (SNS) that metaphysics begins the moment when we cease to live in the evidence of the object (whether it is a sensory or scientific object), when we 'apperceive the radical subjectivity of all our experience as inseparable from its truth value' (SNS:93).

Merleau-Ponty argues that reason will not be devoid of paradoxes, in fact, everything that exists is contingent and ambiguous - the pre-conditions for a metaphysical view of the world (Bakker, 1965:11-19; Moran, 2000:391). He claims that the roots of the paradoxes would be traced back to their beginnings in the moments of the ambiguities of the perceptual faith (Kisiel, 1970:256).

Our experience as our own has a twofold meaning: our experience is co-extensive with all being of which we can form a notion. This, as Merleau-Ponty argues, is a double sense of the *cogito* and the basic fact of metaphysics: that I am certain that there is a being-for-me and a reality that exists for me (SNS:93). Truth exists because I can test it against the experience of others. In my co-existing with everything and everyone, reality becomes accessible to everyone (Van Huyssteen, 1966:77). The 'essences' that Merleau-Ponty writes about are not abstracted essences like Plato's ideal Forms - they are rather 'tools' or means that we use to achieve our aim of understanding our own lives in the world (PP:xiv-xv).

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<sup>16</sup> Husserl's notion of the lifeworld is the 'pre-given' or everyday world onto which we build our theories. He also describes it as the real world, the world in which we live and which we perceive (Spiegelberg, 1965:28).

<sup>17</sup> Merleau-Ponty refers to Husserl, arguing that transcendental idealism results from Husserl's notion that any transcendental reduction is at the same time an eidetic one. Essences and existences cannot be taken for granted, according to Merleau-Ponty: 'They contribute to determining the significance of the *cogito* and of ultimate subjectivity. I am not a constituting thought, and "I think" is not an "I am", unless by thought I can equal the world's concrete richness, and re-absorb facticity into it' (PP:376).



### 2.2.2.2 *Intentionality and Being-in-the-world*

Merleau-Ponty developed his theory of intentionality on the basis of Husserl's notion that consciousness is always being conscious of something (PP:386). A central tenet of phenomenology is the concept of intentionality. Husserl formulates the concept to imply that intentionality is the phenomenological method to recover the forgotten origins of scientific knowledge. However significant intentionality is, according to Merleau-Ponty, intentionality is not the 'main discovery of phenomenology', but intentionality is understandable only through phenomenological reduction (PP:xvii).

Husserl attempts to show that meaning is related to consciousness. Meaning must be retraced to the pre-objective intuitions of the 'things themselves' in their 'flesh and blood presence' (Kearny, 1994:18). Intentionality is therefore intertwined with our being-in-the-world. The aim of Husserl's method of reduction is to rediscover the hidden intentionalities of consciousness so that we can examine their essential structures in a presupposition-less manner (Kearny, 1994:18).

Husserl's method of reduction is divided into five stages. The first stage is the 'putting out of play' (Husserl, [1950] 1990:20, §8) of presuppositions of the natural attitude (Spiegelberg, 1965:28) that underlie our everyday experience and the sciences - by means of the *epochē*, to bring us back to the lifeworld. The second stage is an application of phenomenological reduction to return (*reducere*) to the starting point of our intentional experiences. In the third stage, the *eidōs* (essence) or invariant structure of the thing intended occurs in what Husserl terms *free variation*: after having undergone the first two stages, imagination can vary or modify the given thing until its invariant structure is revealed. In the fourth stage, an *intuition* of the essence emerges passively from our free variation. To intuitively grasp the essence is 'to repeat the pre-reflective acts of our intentional experience in a reflective fashion' (Spiegelberg, 1965:19). By means of this phenomenological (and also transcendental) intuition of essences, the world is no longer a self-evident given. The last stage of Husserl's method of reduction is to describe the essential structures of the intended thing or *noema*, and the intending consciousness or *noesis* (Spiegelberg, 1965:19).

Merleau-Ponty does not agree with the whole of Husserl's method of reduction, especially with Husserl's 'transcendental' or 'idealistic' stages of the reduction, but he does draw on Husserl's distinction between 'act' intentionality and an 'operative' intentionality in order



to drive home the importance of ‘returning to the things themselves’, in other words, to a ‘phenomenology of origins’ (Macann, 1993:163). Spiegelberg (1965:109) explains that ‘[a]ct intentionality is the intentionality involved in judgments and in any analysis of experience which takes an already constructed world of objects as the starting point for its thematic investigations.’ To rephrase Spiegelberg’s interpretation, these acts of intention are those that blindly refer to the intentional objects when we merely think of them, and do not have a clear idea of their nature yet. ‘Operative intentionality’ is the intentionality that brings into existence such a world described in act intentionality (Spiegelberg, 1965:109; *PP*:xviii,429). Operative intentionality captures the original meaning in experience in such a way that the lifeworld becomes the locus of feeling, evaluation and thought. Thus, for Husserl, ‘operative intentionality’ brings to light the lifeworld as the original source of thought and knowledge (Macann, 1993:163; *PP*:418).

Husserl ascribes the function of constituting the intentional object to intentions; moreover, he sees the intentional object as that which originates the act, or as a practical function applied to an intellectual act (Spiegelberg, 1965:110,116). Husserl’s analysis not only focuses on the object of consciousness (for example, a table), but more fundamentally on those acts of consciousness (perception, imagination, signification and so on) that ‘intend’ the object. We perceive the world in its many profiles (*Abschattungen*): the object is presented more fully to us when we perceive it from its various perspectives. In perceiving a specific table, we move beyond its particularity to grasp the total essence of the concept of a ‘table’. Husserl calls this conscious act ‘symbolic intentionality’ or ‘act intentionality’, and he argues that this intentionality transcends the object as it is given here and now (Kearny, 1994:21).

For Husserl, intentionality is the fundamental structure of consciousness and the main theme of the theory of constitution; in Merleau-Ponty’s argument, the function of intentionality is to reveal the world as it is already there, ready-made (Spiegelberg, 1982: 552). In other words, beneaththetic (positing) intentionality (related to acts), there is another kind of intentionality - the condition of the possibility of thethetic intentionality - an ‘operative intentionality’ (which, Merleau-Ponty says, is already at work before any positing or any judgement), namely a ‘*Logos* of the aesthetic world,<sup>18</sup> an art hidden in the depths of the human soul’ (*PP*:429).<sup>19</sup>

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<sup>18</sup> Merleau-Ponty refers to Husserl’s conception of ‘aesthetic’ in the wide sense of a transcendental aesthetic (cf. *PP*:429): the ‘aesthetic’ is ‘the mode of experiential expression which embraces both perception and

It is in the body's symbolic behaviour that Merleau-Ponty finds the possibilities of all expression that constitutes our cultural worlds: he relates the symbolic forms of science and its 'free variations' to words and language (and the perceptual world), which evolve and grow through use. This becomes a process of discovery and relating which resembles the '*logos* of the aesthetic' (cf. Kisiel, 1970:267). Merleau-Ponty's 'enlarged' conception of intentionality includes not just our conscious acts, but also our whole being-in-the-world and our 'comportment' towards others (Spiegelberg, 1982: 552).

Merleau-Ponty's notion of intentionality presupposes being-in-the-world to show us that the body-subject is essentially a project of the world: '...the world permeates right to the heart of subjectivity, so that the human being is nothing other than entering-into-the-world-intentionality' (Kockelmans, 1957:384). 'Being-in-the-world' and 'intentionality' are different points of view on the unity of one's body and the world. For Merleau-Ponty, intentionality is that which characterises the unitary being (Wolff, 2006). Meaning (the French term *sens* in this instance) directs intentionality. Meaning also stems from a dialectic relation between the body-subject and the world (which are fundamentally interwoven). For Merleau-Ponty, intentionality becomes visible and it manifests in the body (*PrP*:5) thus, all consciousness is incarnated; it is a 'tacit *cogito*', or 'the presence of oneself to oneself', which is anterior to any philosophy (*PP*:403-404).

Intentionality is directed at something. This directedness in a process is revealed in perception and in motility. Moreover, the object is the 'primordial given'<sup>20</sup> of intentionality; it is the object that gives birth to the subject, to which the object is always irreducibly linked (unlike the Cartesian 'impoverished' abstractions of the phenomenal body). For Merleau-Ponty, consciousness is 'being towards the thing [in other words, intentional] through the intermediary of the body', which implies the body's notion of (potentiality for action) 'I can' (*PP*:160,161). Thus, bodily motility is basic intentionality.

Merleau-Ponty uses the following example to describe this basic intentionality of bodily movement: when I want to pick up a pair of scissors, my hands are 'potentialities, already mobilised by the perception of scissors..., the central end of those "intentional threads"

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imagination'. Thus, Merleau-Ponty refers to the 'aesthetic' genesis of our ideas through which phenomenology enables us to 'reconstitute the original incarnation of mind in body' (Kearny, 1994:75).

<sup>19</sup> Heidegger argues that the '*logos*' does not mean 'a study of' or an 'account of' but 'making something manifest' (Matthews, 2002:27).

<sup>20</sup> Derived from Husserl's concept that the world exists independently from our existence and is given to us in perception.



which link [me] to [the scissors]' (*PP*:106). Similarly, a door handle solicits a certain grip of my hand as I approach a building's entrance. Merleau-Ponty refers to the sensible (that which can be perceived via the senses) as a vague bodily invitation as it 'beckons' my gaze or my fingers (in the example above) to experience. Like a remote attraction, the 'phenomenal forces' are at work in my visual field and that sensible experience 'elicits' from certain motor reactions from my body, because my body is sensitive to it (*PP*:106).

A 'generality' and an impersonal aspect of perception differentiate sensible consciousness from intellectual consciousness. In sensible experience, I am not aware of being the 'true subject of my sensation,....but I can reflect on these [experienced sensations] and understand it as pre-personal experience' (*PP*:214-216). Sensation therefore has significance beyond itself and it suggests a form of existence to me, which is found in the sensible, so that I am brought into a relation with an external being (*PP*:213). The intentionality of perception is anchored in what Merleau-Ponty calls the 'motor intentionality' of our bodily skills. Our bodies constantly adjust and situate themselves to perceive things properly and maintain our best hold on things (*PP*:110,317,267). It is onto our primordial nature that a second nature is added and developed as 'cultivated perception' that restructures our praxis and language, so that our symbolic forms (such as in the sciences) can evolve. This cultivated layer is made possible by the motor subject. This is discussed in greater depth in the comments on habits below and in the next chapter.

Consciousness does not constitute the world in the present, otherwise consciousness would be bogged down in it, and 'the percept would lose the thickness conferred by the present' (*PP*:238). The person who perceives has a historical density, 'he [/she] takes up a perceptual tradition and is faced with a present' (*PP*:238) and therefore she can 'inhabit the object' (*PP*:68) or be 'given over' to it, because the body of the object is better informed about the world than we are (*PP*:238).

Merleau-Ponty's interprets 'being-in-the-world' as the corporeal consciousness's immersion in the world. He criticises Heidegger's work as not adequately describing what precisely should be understood by the expression 'being-in-the-world' (Kockelmans, 1970:275) - he believes that Heidegger situates himself in a field of complexity, and important problems could not be solved by looking at the essence of human beings in the way Heidegger does. Moreover, according to Merleau-Ponty, Heidegger leaves many problems untouched which could be solved on the level of human perception from which original meaning emerges;

his critique is that Heidegger barely deals with the problem of perception (and the primary role of the human body in perception), because Heidegger barely mentions the human body (Kockelmans, 1970:275; cf. Spiegelberg, 1965:328; Welton, 1999:4-5).

Nevertheless, by adopting and adapting Heidegger's concept of being-in-the-world, Merleau-Ponty argues that intentionality and being-in-the-world reciprocally presuppose the human body. In his course notes from 1959-1960, Merleau-Ponty (N:74) expresses his development of this notion again:

I organize with my body an understanding of the world, and the relation with my body is not that of a pure I, which shall successively have two objects, my body and the thing, but rather I live in my body, and by means of it I live in the things. The thing appears to me in this way as a moment of the carnal unity of my body, as enclosed in its functioning. The body appears not only as the exterior accompaniment of things, but also as the field where my sensations are localized.

### 2.2.2.3 Embodiment

Merleau-Ponty developed his anti-dualist phenomenological analysis of the human body in the world, while Martin Heidegger in his text *Sein und Zeit* (which he started writing in 1922) developed an ontology of Being in which he gave selective analyses of certain features of human existence (cf. Spiegelberg, 1965:298,288). Although Heidegger does not give specific philosophical accounts of the human body, his concept of 'being-in-the-world' (Spiegelberg, 1965:328) has greatly influenced other phenomenologists' conception and development of the notion of the embodied human being.

From Husserl's idea of the *Leib* (the living animate body), Merleau-Ponty developed the notion of 'my own body' (*le corps propre*). He also drew heavily on Marcel's notion that 'I am my body' as opposed to 'I have a body' and Sartre's view that 'I exist my body' and that my body is somehow 'everywhere' in my experience of the world.<sup>21</sup> Husserl distinguishes between the objective, inanimate body (*Körper*) or object-body, and the living animate body (*Leib*), which Merleau-Ponty uses to argue that humans are bodies inserted in the world to perceive in a very specific way.

This distinction by Husserl forms the groundwork for the phenomenological approach to the body. When Husserl combined this distinction with his theory of intentionality, a new

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<sup>21</sup> 'That is why my body always extends across the tool which it utilises: it is at the end of the cane on which I lean...' As paraphrased from Sartre's *Being and Nothingness* (cf. Moran, 2000:423).

understanding of subjectivity was framed, but it was those who followed in Husserl's footsteps that developed it further (Welton, 1999:4) . When Merleau-Ponty speaks of the subject or the body in singular terms, he implies inter-subjectivity. He explicates human beings' relations to the inter-subjective world (lifeworld) with all its horizons in his later work.<sup>22</sup> Husserl ([1950] 1999) explicates inter-subjectivity in his fifth 'Meditation', which Merleau-Ponty follows closely throughout his career.

## 2.3 Perception

Merleau-Ponty was not the only philosopher to focus on the human body and perception, but his specifically anti-dualist approach to embodiment and the constitutive relation between body and world is important for this study. At the start of Part 2 of *PP*, he writes that the 'theory of the body is already a theory of perception' (*PP*:203).

### 2.3.1 The roots and limits of objectivism

Merleau-Ponty begins his phenomenology of perception strategically with the philosophical dualist accounts of human behaviour and perception as analysed and explained by contemporary physiology and psychology. He criticises physiology's reduction of the human body to an object and a mere advent of stimulus and resulting causality, and psychology of maintaining an impersonal, 'objective' approach while explaining the body as being 'one's own'. Psychology had by that time identified 'characteristics' of the body that gave it the status of being already soul-like; however, psychologists had failed to see the philosophical implications of distinguishing one's own body from objects.

This failure, according to Merleau-Ponty, was the result of their choosing (the scientific position of) impersonal thought instead of describing the actual experiencing thereof (*PP*:96). Both physiology and psychology's approach to the human body at that time was therefore in an externalist mode that led to creating a representation of the human body (Matthews, 2002:5,6). Although Merleau-Ponty maintained a critical distance to psychology, psychology did have a great influence on his approach to his phenomenological explication of perception. Let us look at some of the contributions of classical psychology to Merleau-Ponty's philosophy.

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<sup>22</sup> Cf. Merleau-Ponty, M. [1964] 2000. *The Visible and the Invisible* (p.115).





One way in which psychology (contemporaneous to *PP*) influenced Merleau-Ponty's thought on perception was its identification of 'intuitions' in which the body is already (unlike other objects) soul-like. The first basic intuition is that I can observe parts of my body objectively, but it still is 'my' body; it cannot leave my field of perception completely, unlike an inanimate object that can be explored from different points of view, as I can manipulate it or walk around it. Moreover, the object can be removed from me and thus become absent, whereas my body can never leave me (*PP*:90). My body is permanent and observed from the same angle<sup>23</sup> (from my point of view), which is the condition of the relative permanence of an object.

The second intuition of psychology (contemporaneous to *PP*) was to regard visual and tactile perception as that which 'refers me back to an original of the body which is not out there among things, but in my own province, on this side of all things seen [or touched]' (*PP*:92). Merleau-Ponty describes this power that my body possesses (and that gives me the experience of double sensations) as an ambiguous relation: the acts of two hands touching each other and being touched at the same time cannot simultaneously be consciously perceived. The double sensation is a non-coincidental and a consciously reversible perception of a coinciding event (Wolff, 2005). Therefore one's body is neither seen nor touched while it sees or touches (*PP*:92). Merleau-Ponty calls this phenomenon of the knowing-body that has the power to turn back or to reflect on itself a structure of reversible circularity (Madison, 1982:25).

The third intuition of psychology at that time was to regard the body as an affective object in the sense that a person experiences pain at a specific locality in the body and that pain 'is constitutive of a "pain-infested space"' (*PP*:93).

The fourth intuition of psychology contemporaneous to *PP* was that kinaesthetic sensations present the body's movements to us globally (*PP*:94), whereas the movement of external objects requires a mediating perception which 'demands a mental operation'. By 'kinaesthetic sensation' psychologists meant that the origin of movement starts as a germ within my body as it anticipates the final situation, and that I perform the movement with my body, hence, I move my body directly (*PP*:94).

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<sup>23</sup> The object can be perceived from various points of view. When I move around it, it reveals different aspects of itself to me. As I cannot view all of its possible aspects at once, since I only have access to a specific perspective of the object at any given time, my perception will never be complete. (This is one of Merleau-Ponty's and Husserl's ideas on the perception of the object.)



### 2.3.2 The body-subject

In the light of the above contributions by psychology, which Merleau-Ponty interpreted in his own phenomenology, he writes that the 'body is no longer conceived as an object of the world, but as our means of communication with it...the world no longer conceived as a collection of determinate objects, but as the horizon latent in all our experience and itself ever-present and anterior to every determining thought' (PP:92). Merleau-Ponty's development of the notion of the physical subject (the body-subject) in *SB* was underpinned by Husserl's ideas on the human body in the world.

The influence of Husserl's philosophy on Merleau-Ponty's phenomenological approach to the human body in the world is especially clear when one refers to Husserl's work on the role of the body in relation to things: firstly, for there to be something means that it must be presentable to an incarnated subject, or a *Subjectleib* (N:74). From the view of my 'lived body' (Husserl's term *Leib*<sup>24</sup>), the object is constituted; and it is only through our contact with objects in the world that the lived subject is constituted.

Husserl holds that there are several ways in which the body intervenes in the position of things. Firstly, the body intervenes as an organ of the 'I can', the awareness of the body's power as a 'being-able-to'. Secondly, the body intervenes in the position of things, in being 'excitable' as a 'capacity to sense' as simultaneously being a 'subject-object' (Husserl gives the example of a person's right hand touching the left hand). Thirdly, the body acts as a standard(ised) thing and as the place of 'zero of orientation':

All the places of space proceed from [my body], not only because the location of other places is conceived starting from the place of my body, but also because my body defines the optimal forms; when we look in the microscope, Husserl says, there is a strange teleology of the eye that means that this eye is appealed to instinctively by an optimal form of the object. The activity of the body defines this form; therefore the idea of a *Rechtgrund* is established in us, from which all knowledge will be formed...the idea of norm has been founded by my body. The Absolute in the relative is what my body brings to me. (N:75)

Merleau-Ponty built on these ideas and developed the notion of the body-subject as being the fundamental function that reveals the total human being in anonymous perception itself. Merleau-Ponty regards the body-subject as the meaning-giving existence at the pre-conscious level (Kwant, 1957:222). It is that which looks out on the world from a particular

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<sup>24</sup> Behnke (1997:69) gives a short summary of Husserl's definitions of the body as object and the lived body.



‘here and now’ (Matthews, 2002:8). We cannot identify such a subject with either a pure reason or a pure consciousness which takes in the world and makes sense of it as a whole.

Instead of comparing the situated body to a physical object, Merleau-Ponty sees the body as a work of art and as an expression (PP:150,151). In a painting or a poem there can be many different ways in which something is ‘said’ or expressed. The meaning of the work of art depends on its specific materiality. Therefore, in trying to relay the gist of a poem, the full meaning (which lies in its exact contents) would be lost (Wolff, 2006).

The phenomenal body (the lived body) is what I am, says Merleau-Ponty (PP:150,151): ‘...it is me inasmuch as I am conscious of the world.’ The lived body or body-subject is my embodied existence. Merleau-Ponty also refers to the body-subject as ‘a consciousness’ or as ‘an experience’. He adapts the notion that ‘I am my body’ (PP:150,198), after Gabriel Marcel,<sup>25</sup> to express the irreducible intertwining of the threefold cord of embodied-consciousness-in-the-world, the inseparability of the experiencing ‘I’ and the lived body as one’s intentional opening to and particular way of inhabiting the world (Morris, 2008:111).

Being a body-subject, how do I then perceive my own body? Merleau-Ponty’s answer to this question is that we perceive our own bodies in two ways: firstly, I can perceive my body as being-in-the-world or, secondly, I can see my body as a representational body. My body as being-in-the-world is existential, which means that the body is ‘lived’ (*corps vecú*) and intentionally structured. Through my body, I have access to this form of existence.

Being-in-the-world means that I exist - I am my body. Beneath my personal life is a pre-personal ‘cleaving’ to the general form of the world (being-in-the-world) as an anonymous existence, which plays the part of an inborn complex. Being-in-the-world, as Merleau-Ponty puts it, gives me access to my body that I experience at this moment, which is involved in and committed to the world. The only way to ‘understand the function of the living body is to enact it myself, and... in so far as I am a body which rises towards the world’ (PP:75).

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<sup>25</sup> Merleau-Ponty discusses the difference between his and Marcel’s interpretations of the relation of *having* which are first concealed by relations belonging to the domain of *being*. Marcel takes ‘having’ in a weak sense, for example, I have a house, ‘and immediately takes “being” in the existential sense’ of taking up or belonging to: ‘I am my body; I am my life.’ Merleau-Ponty prefers to use ‘being’ in the weak sense of existence as a thing, for example, ‘the table is’ and to use ‘having’ as that which is in relation to the subject, for example, ‘I have an idea’. Thus Merleau-Ponty’s ‘having’ roughly corresponds to Marcel’s ‘being’ and Marcel’s ‘having’ corresponds to Merleau-Ponty’s ‘being’ (PP:174f). In other words, for Merleau-Ponty, ‘having’ and ‘being’ are two terms for the relation between ‘my body’ and ‘I’ (Wolff, 2009). In the case of my body, elsewhere, Merleau-Ponty refers to the idea that I am my body (PP:148). Marcel’s notion is one of ‘I am my body’ rather than “I” [am] belonging to my body’ or “I” [am] existing as a body’.



Moreover, we constantly and consciously oscillate between the modes of my body being-in-the-world and my representational body. 'It is because it is a preobjective (sic) view that being-in-the-world can be distinguished from every third person process...' (*PP*:80) The representation of the body operates in the mode of 'I think that...', whereas I exists my body or the 'I am busy being-in-the-world' is the lived body. Personal existence is intermittent; the moment I forget the process of existence and of being my body, my body becomes an object (*PP*:80). However, I am only conscious of my body via the world and conscious of the world via my body (*PP*:82), hence the intermittence of personal existence is like a tide that turns and recedes (*PP*:84).

I am committed to the world, thrown into my tasks, my familiar horizons and my situation by the natural momentum of existence (*PP*:80) and in this natural momentum of existence, says Merleau-Ponty (like other existentialists such as Sartre), there is no distinction between emotion and behaviour, as they are reciprocally related (Bakker, 1965:75). I get goose bumps when I experience a beautiful musical performance, or my posture changes and my heart pounds faster when I experience anger, like in the example of the angry man with his clenched fists in *PP*. This confirms the affective nature of our bodily existence in the world. It also makes sense to say 'I am sad' or 'I am angry', because it is a confirmation of my whole being that is affected by these emotions.

Merleau-Ponty wanted to describe the 'fullness' of being-in-the-world, of existence within a spatial and temporal horizon as viewed and experienced from different perspectives. However, certain dimensions in the unity of behaviour (such as the act of visual representation that pre-supposes abstract movement or projection) are concealed beneath other dimensions of behaviour. Therefore, Merleau-Ponty strategically reverted to the studies of certain pathologies in human behaviour from which he could qualify his descriptions of 'normal' existence. He writes:

Inductive and causal thought, by vesting [in] vision or touch or any de facto datum the power of projection which is found in them all, conceals that power from us and blinds us to that dimension of behaviour which is precisely the one with which psychology is concerned....In so far as behaviour is a form, in which "visual" and "tactile contents", sensibility and motility appear only as inseparable moments, it remains inaccessible to causal thought and is capable of being apprehended only by another kind of thought, that which grasps its object as it comes into being and as it appears to the person experiencing it, with the atmosphere of meaning then surrounding it, and which tries to infiltrate into that atmosphere in order to discover, behind scattered facts and symptoms, the subject's whole being, when he is normal, or the basic disturbance, when he is a patient....So one method alone still seems possible: it consists in reconstituting the basic disturbance by going



back from the symptoms not to a cause which is itself observable, but to a reason or intelligible condition of possibility for the state of affairs. It involves treating the human subject as an irresolvable consciousness which is wholly present in every one of its manifestations. (PP:120)

Thus far, we have been introduced to the main concepts of Husserl's phenomenology and continued with Merleau-Ponty's interpretations thereof, as well as with his own concepts on the body-subject. We still do not know how Merleau-Ponty formulated and worked out his concept of perception, and nor do we know how he interprets perception in the world. Let us first find out how Merleau-Ponty conceives of the 'world' in which we have our experiences and perceptions, before we continue with his philosophy of existence. We are aware at this stage that the body and world are intertwined: there can be no body without a world; there can be no world for me if I had no body. This unity concept is central to Merleau-Ponty's work, and should be borne in mind throughout this study.

### **2.3.3 The world**

When we talk about our experiences, the world as the setting in which all our thoughts and actions take place is presupposed. The perceived world for Merleau-Ponty is not a 'pure object of thought' but rather 'like a universal style shared in by all perceptual beings' (PrP: 6). Merleau-Ponty maintains that we have a world by means of and through our body, and that only in the world can we know our body. Through our body, we can know the world: *'To be a body, is to be tied to a certain world'* (PP:148).

The world in which we perceive underpins Merleau-Ponty's study of embodiment. Therefore, we cannot speak of a 'world' unless the objects making up that world form a unified whole and are internally related to each other. We also cannot call it a 'world' unless these objects' existence is prior to and independent of our experience of them. However, we cannot impose that unity on the world, because if we do so, like the empiricists did, the world is reduced to a concept of itself, and if we do that, independent reality is denied (Matthews, 2002:52,53).

In traditional philosophy, the 'world' was interpreted as an ordered whole or a cosmos, whereas the phenomenological notion of 'world' (as derived from Husserl and Merleau-Ponty's philosophy) is that which functions as a horizon that always exists as long as I am alive, a horizon that contains everything for me or for us (Bakker, 1965:20). For Merleau-Ponty, the world is neither a single 'thing' nor a 'sum of things' nor the sum of my understanding or perceptions of reality, rather, the world is what I am. The world is the

ground of all things from which all things emerge as processes or unfolding in time and space. Merleau-Ponty looks at spoken language and perception in the same manner, that is, as processes of unfolding and becoming.

### 2.3.3.1 *The perceptual field*

Merleau-Ponty writes that perception of something is always in the middle of something else; in other words, perception of something is always part of a perceptual field. When we perceive phenomena, 'we find ...a whole already pregnant with an irreducible meaning: not sensations with gaps between them, into which memories may be supposed to slip, but the features, the layout of a landscape or a word, in spontaneous accord with the intentions of the moment, as with earlier experience...to perceive is not to remember' (PP:22). The relationships of figure and background or thing and nothing, and the horizon of the past are all structures of consciousness (that are irreducible to the qualities that appear in them).

Therefore, when mental life extends outwards over human space and we invest certain states of temperament, attitudes and emotion (by projection and association) in people and in landscapes, as some intrinsic characteristics of them, the 'human world' can become the 'homeland' of our thought, instead of being only a metaphor and representation of our thought (as intellectualism held it to be) (PP:22-24). Moreover, when I perceive a material object, it stands out as a figure against a background. I share the same background as the object that I perceive; the background is 'in a sense' known to me and is part of me from the start.

I can explore the field by moving around in it: 'The field....is the scope of the body's capacities with which the percipient from the very beginning of experience knows he or she is endowed, and which [the body's capacities] are ready to be exercised ...e.g. an act of visual focusing on a particular object... is a response elicited by what comes to us out of that field' (Pietersma, 1977:458).

Merleau-Ponty directs us to painting as one of the primordial and authentic acts of perception: 'Painting awakens and carries to its highest pitch a delirium which is vision itself, for to see is *to have at a distance...*' (PrP:166). Thus, the 'painter's role is to grasp and project what is seen in him' and 'the painter's vision is a continued birth' (PrP:167). It is therefore in the perceptual field that the body-subject simultaneously 'inhabits' the object and has it at a distance. This Being of which vision is a part (vision that is both 'inhabiting' and 'having at a distance') is what Merleau-Ponty develops into an ontology of

the flesh when he regards the body as a sort of ‘dehiscence’ (bursting open); an ‘overlapping’ in which ‘things pass into us as well as we into the things’ (VI:123) which is ‘the intertwining of the body with the visible things’ (VI:49).

The field is neither a perceptual awareness nor an object, but a framework that ‘embraces’ both (VI:49). The limits of a visual field are not clearly cut out like a window framing a landscape, with sharp edges cut out of our objective world; instead ‘we see as far as our hold on things extends’ (PP:277), and thus the limits of the visual field extends beyond what I actually see. So, for example, the radio playing in the room next door can be part of my visual field (PP:277).

The recognition of the limits of the visual field is a necessary phase in the organisation of the world, and it is only in this relationship of an object that ‘crosses our visual field, and changes its place in it’ that movement (of objects) has any meaning for us (PP:227). The visual field and the perceptual fields differ. We might misinterpret the notion of a perceptual field as being outside of ourselves - this is not the case. Merleau-Ponty later describes the perceptual field as being unique to each person:

...but when I come to understand a thing, a picture for example, I do not here and now effect its synthesis, I come to it bringing my sensory fields and my perceptual field with me and in the last resort I bring a schema of all possible being, a universal setting in relation to the world. At the heart of the subject himself we discovered, then, the presence of the world.... (PP:429)

### 2.3.3.2 Merleau-Ponty’s notion of the ‘horizon’

When reading Merleau-Ponty’s texts, one tends to assume that he attached a singular meaning to the concept of ‘horizon’; that is, within the world is the horizon, and the horizon is the condition by which each perception can take place (Kockelmans, 1957:379). However, I want to highlight the different ways in which Merleau-Ponty defined and used the term ‘horizon’.

Firstly, when I look at an object, I focus my gaze on it, while the objects that surround the object in focus are situated in the field of my peripheral vision. Both the object in focus and the surrounding objects are viewed within a *perspective* that forms *part of the horizon*. Our perception of the object can only be from a specific perception at a time, and can thus never be exhausted.<sup>26</sup> Furthermore, the object or perceived thing has its own

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<sup>26</sup> Refer to Husserl’s *Abschattungen* as the different aspects or perspectives that one can have of an object at a given time.



*inner horizon* (which Merleau-Ponty describes as the set of possible profiles the object can have without losing its identity or essence) and an *outer horizon* or boundary that separates it from the background against which it appears (PP:67,68). Both the object and background<sup>27</sup> form part of the world and are thus part of the horizon as described above.

Merleau-Ponty's third reference to a horizon is to its structure: it is a spatial and temporal setting that oscillates between (and at the same time coincides with) a *first* horizon and a *second* horizon by means of our actions. In our daily movements and actions, we make gesturing movements or 'signals', for example, by pointing to the library and waving to someone across the parking lot, I indicate that I am on my way to the library. For Merleau-Ponty, the general natural setting is the *second* horizon, whereas my gesturing body becomes the *first* horizon in abstract movement.<sup>28</sup> He describes abstract movement as the movement that my body creates in a virtual setting as a 'centrifugal and cultural space' (PrP:7). The point that I 'indicate' with my finger is accorded a spatial value that corresponds to my actual situation. The 'indicated' point comes to symbolise all the other spatial values (PrP:7).

Another instance of abstract movement against a virtual 'horizon' occurs when I 'draw' an outline of a triangle by moving my arm through the air in the three directions that indicate the sides of a triangle: I have 'superimposed upon actual space (with its self-identical points) a virtual space' (PrP:7), in which my body is the first horizon, against our daily natural setting or background (the second horizon). Abstract movement cannot be 'reduced' from our concrete, natural movements. Nor should we conceive of either as separate instances of movements, but rather as a layering of horizons, in my view.<sup>29</sup>

The body as the *first horizon*, created by performing abstract motions in virtual space, against the concrete background (*second horizon*), constitutes a spatio-temporal situation. I would go as far as to call virtual space another (bodily constructed) horizon, so that the situation in which gesturing takes place has three horizons. This constructed abstract horizon, namely, virtual space, plays a very important role in architectural design and

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<sup>27</sup> The background, according to Heelan (1988:8), belongs to the world negatively, in the sense of being part of the world that is neither the object nor part of the object. This background forms part of my perceptual horizon, which is a part within the horizon of the world. An object's profile is a particular manner of appearance given to my perception and each profile has a foreground-background structure.

<sup>28</sup> Another example of abstract movement occurs when I wave or gesture to someone across the room, whereas concrete movement is unself-conscious, as I am intentionally directed towards my projects in the world, for example, I am walking to the station to catch a bus to the music hall where I shall attend a concert. Abstract and concrete movement are described in greater detail in the next section.





teaching: firstly, as a representational technique using computer graphics, and secondly, gesturing sizes and shapes in abstract movements to convey an idea to students. However, all these horizons form a unique totality in a situation within the total horizon that is the world.

The temporal horizon consists of the past, present and future. Past and future are fused into the present in our experiences. When we listen to a melody, for instance, we can anticipate the next phrase or notes which are to be played in the immediate future - Husserl terms such kinds of anticipation 'protensions' (Moran, 2000:138) - by means of association with the immediate past - which Husserl calls 'retensions' (PP:416; Moran, 2000:138), - and the projection of memories within a horizon of meaning (PP:15,86,428). Merleau-Ponty writes that perception runs ahead of itself ('My present outruns itself in the direction of the immediate future...and a past', PP:418,421), in that perception transcends the immediate present.

The fourth way in which Merleau-Ponty describes the horizon is, in my opinion different from the temporal setting in the third definition. Merleau-Ponty writes that my living present opens upon my past and future, and it can also open upon other temporalities that extend beyond my experience to incorporate the social horizon, which in its turn opens upon a collective history and future of which I am a part. The *social* horizon has its generalities and its particularities, just as my existence has its generalities and particularities. In other words, my horizon includes my *historical* and *cultural* setting with all my frames of reference and implicit beliefs, as well as my awareness of my own temporality (PP:431-433).<sup>30</sup>

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<sup>29</sup> I owe the idea of the inseparability and integration of abstract and concrete movement to Wolff.

<sup>30</sup> The notion of horizon and the fusion of horizons as explicated by Gadamer, the principal philosopher on hermeneutics, could also apply to Merleau-Ponty's reference to horizons. Gadamer's concept of the horizon implies an inter-subjective and historical understanding and interpretation. Gadamer shows that there can be an interpersonal and intercultural understanding that ranges across time and place, and that varies and changes and is constantly revised. The understanding of ourselves and of other cultures or interpretations of cultural 'objects' such as texts come about by means of conversation and having a general openness towards understanding different lifeworlds - ultimately, we all share the same humanness. We allow for other cultures' beliefs or acts as part of their human condition, and therefore we make room for that horizon to fuse into our ontological horizon by means of language and acts of practical judgement or 'phronesis' (Scheibler, 2000:164-169; Taylor, 2002:136-142).

Hermeneutics is a theory of understanding (Palmer, 1969:137). Moving closer to Heidegger, Merleau-Ponty already, according to Watson (2009:66-68), insisted on a hermeneutics of phenomenology in *PP* when he wrote: 'There are several ways for the body to be a body, several ways for a consciousness to be consciousness' (PP:124). By the same token, Merleau-Ponty argues for a phenomenology of hermeneutics. This hermeneutic perspective for Merleau-Ponty (perspectivism) 'remains risked in the unique structure which is presence' (Watson, 2009:118). Watson claims that Merleau-Ponty differs from Gadamer in that Gadamer appeals to the 'transcendental Signified', whereas Watson (2009:66-68) claims that the Saussurian



### 2.3.3.3 Merleau-Ponty's notion of the lifeworld

The 'world' for me or for us can be a multiplicity of worlds, for example, the world of my family, my profession, of music, art and so forth. In other words, there can be many worlds in which I lead my life and these lived worlds or lifeworlds can be described phenomenologically. The idea of the lifeworld (*Lebenswelt*) arises from Husserl's manuscripts in which he set out ideas on the phenomenological exploration of different lifeworlds as the world as experienced by a living person from his or her perspective (Spiegelberg, 1965:160). Starting from Husserl's conception the 'lifeworld', Merleau-Ponty holds the lifeworld to be the world as lived through prior to the objective one (*PP*:60). The lived world always includes other people.

While positivists study *the* objective world, phenomenologists study the different lifeworlds. Hence, Merleau-Ponty suggests that we do not only live in the 'real' world of perception, but also in the realms of the imaginary, of culture, language and history. He believes that we shall discover, in all these different levels or realms of experience, the (enriched and transformed) structures of consciousness, but, importantly, none of its qualities can be reduced to perception as such.

The different 'lived worlds', for instance, the fairy-world of the child, the primitive world of mythical beings and so forth, as deduced lived worlds fall within the overall horizon of the natural, original world of all our perceptions. Both the nature of perception and the nature of the original world are spatial and temporal, and both remain perspectival, as they are never fully exhaustive (Kockelmans, 1957:380). Merleau-Ponty also calls this perceived world the 'perceptual field'<sup>31</sup>, the 'phenomenal field' or the 'lived world' (Dwyer, 1990:9).

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influence of language and metaphor played a determining role in what he calls Merleau-Ponty's re-invention of meaning.

It is important that we do not confuse hermeneutics (which gives 'mediated' and indirect access to reality) with reflection on pre-self-conscious (lived) experience, which, according to Merleau-Ponty, is our direct access to reality. Hermeneutics should also not be confused with the praxis of phenomenology; that is, to turn 'to the things themselves' by means of the reduction. Although our perceptual field includes our situatedness and history, the reduction allows us to consciously 'suspend' our scientific and other epistemologies acquired through our education.

<sup>31</sup> Referring to Koehler's *Gestalt* psychology, Merleau-Ponty argues that the perceptual field is 'made up of "things" and "spaces" between things' (*PP*:15). Phenomenology talks about a transcendental *field*: in order for reflection to maintain the descriptive characteristics of the object (of our pre-reflective experience) reflected on, and if we want to 'thoroughly understand that object' we must regard reflection 'as a creative operation which itself participates in the facticity of that experience' (*PP*:61). Thus Merleau-Ponty claims that the perceptual and phenomenological field is also a transcendental field, because 'reflection never holds...objectified before its gaze, the whole world....[reflection's] view is never other than partial and of

In order to understand humans as Beings-in-the-world, one has to start with a phenomenological study of human perception to show the predominant role that the human body plays in that perception. Merleau-Ponty's concept of the world as 'in-itself-for-us' proposes that the phenomenal world is lived (before any empirical study can be made of it<sup>32</sup>) (*PP*:ix, xv, xvii). He equates this lived phenomenal world with the real, and the perceptual world, which is dialectically related to the body. In other words, our bodies are 'geared' to respond to and act in our world in relation to how the world responds to and acts upon our bodies.

The questions posed by the world are answered by our embodied potential for action, that is, the bodily notion of 'I can'.<sup>33</sup> The body's notion 'I can...' prior to 'I think that...' is a 'corresponding solicitation' between the world and our bodily intentions, for our body develops habits to deal with the world (Wolff, 2006, 2009a:10). Merleau-Ponty's argument in *PrP* is that the perceived world 'is the always presupposed foundation of all rationality, all value and all existence' (*PrP*:13). It is thus by means of the subject being-in-the-world that perception and the world of things which we inhabit is given, yet with the world as the 'cradle of all meanings, the direction of all directions, and the ground of all thinking... [is] the native abode of all rationality' (*PP*:430).

With the subject as a being-in-the-world, there is a relation between the 'time-subject' and 'time-object' through which we can understand the relation between subject and object, 'as time discloses two abstract "moments" of a unique structure, which is *presence*' (*PP*:430). Without 'things' in the world, there would be no consciousness, since consciousness is always intentional. For Merleau-Ponty our corporeality means that our whole existence is intentionally directed towards the world; our bodiliness is 'at the very centre of our experience'. Thus by our being-in-the-world, the subject and object are constituted: there is *for us* an *in itself* (*PP*:71).

I have given an outline of Merleau-Ponty's concept of the 'world', 'lifeworld' and 'being-in-the-world', but as I have said earlier, none of these concepts can be regarded as themes when they are not understood as structures in a synthesized unity and as forming part of

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limited power. ... Phenomenology (of all philosophies) is the *advent* of being into consciousness, instead of presuming its possibility as given in advance' (*PP*:61).

<sup>32</sup> Preceding the objective or the subjective worlds as conceived by the empiricists and idealists, the phenomenal world is the world with its inherent limits brought about by time, culture, space and embodied perception (Dillon, 1997:87-89).

<sup>33</sup> This concept was developed by Husserl (Dillon, 1997:87-89).

interrelations within this unity called embodied existence. The question that then arises is what makes Merleau-Ponty's approach to embodied existence and perception unique.

I discuss the threefold answer at greater length below. A brief summary of the answer is the following: firstly, Merleau-Ponty studies pathologies and dysfunctions in perception in order to understand normal perception better. Secondly, Merleau-Ponty applies the principles of *Gestalt* psychology to gain a deeper understanding of the human body and perception. Thirdly, Merleau-Ponty's project did not end with *PP* - he broke away from Husserl's ideas, until, towards the end of his career, his ideas evolved into an ontology of Being in *The Visible and Invisible (VI)*, his last work.

## 2.4 Unique aspects of Merleau-Ponty's phenomenology

### 2.4.1 Looking at dysfunctional perception and behaviour

Merleau-Ponty wanted to show us the fusion of the body and soul is an *a priori* unity, and the body's irreducible dialectic relation with the world. He reverted to studies of abnormal behaviour in order to demonstrate his point. Neither contemporaneous psychological nor physiological objectivist explanations could satisfactorily account for certain dysfunctions in human perception. So, for example, on the basis of studies on brain-injured patients, Merleau-Ponty points out the twin phenomena of a phantom limb and anosognosia (a patient's failure to recognise a disability). This phenomenon is a state of repression<sup>34</sup> that manifests in the patient's behaviour. Merleau-Ponty suggests that the patient's condition would not be adequately explained from proposals resting on the mind-body split. In other words, reasons for these conditions based on either physical or psychical explanations would of necessity revert to *a prioris* and result in reductions.

Merleau-Ponty's explanation of the condition of the combination of the phantom limb phenomenon and anosognosia was based on the body-subject's 'being-in-the-world', which he claimed was the only explanation that could reveal the fusion of body and soul (Wolff, 2005). Showing that the body consists of two 'temporal' layers (the habitual body and the body as it is at this moment), Merleau-Ponty identifies existence as being in space and time

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<sup>34</sup> States of repression are not necessarily pathological; however, Merleau-Ponty re-interprets the term 'repression' to show that aspects of one's existence can be hidden from oneself. In the case of the phantom limb, the person is still partly functioning in the same way as before the event of the amputation, but after the accident/operation his or her type of being-in-the-world is different. All repression, according to Merleau-Ponty, is a transition from the first person existence to an abstraction thereof, in which the patient perceives his or her body in the light of an impersonal being (*PP*:82, 83).

(PP:82). The patients studied failed to accommodate for and re-adapt the injured body in their experience in the world, as if the specific moment of their injuries were isolated from the flow of time. For a normal person, the horizon of the present includes the immediate preceding and next future moments to form a totality of time, which Merleau-Ponty calls 'protention' and 'retention'. This totality of time overcomes the instants that are each laden with meaning to be re-integrated into personal existence (PP:84, 85).

Merleau-Ponty applies the method of phenomenological reduction to uncover the reason for the basic disturbance. The reduction uncovers the human subject as a non-decomposable consciousness in all its manifestations (Wolff, 2005). He therefore rejects the common interpretations based on a representation of the body, as these problems in perception and behaviour can only be understood when viewed from the perspective of being-in-the-world. Merleau-Ponty writes:

What it is in us which refuses mutilation and disablement is an "I" committed to a certain physical and inter-human world, who continues to tend towards his world despite handicaps....The refusal of the deficiency is only the obverse of our inherence in a world...To have a phantom arm is to remain open to all the actions of which the arm alone is capable.... (PP:81)

In other words, our inherence in our world makes our 'bodily experience force us to acknowledge an imposition of meaning which is not the work of a universal constituting consciousness' (PP:147). What is important about this statement is that Merleau-Ponty identifies a universal structure of bodily experience; namely, that the body attributes meaning to every experience and that happens by being-in-the-world. "Bodilyhood" (Behnke, 1977:69) in terms of Merleau-Ponty's account is pre-reflectively lived, rather than a study 'about' the body (Behnke, 1977:69). The body, for Merleau-Ponty, is our expression of our meanings and intentions in the world.

#### 2.4.1.1 *The case of Mr Schneider*

Merleau-Ponty refers to Mr Schneider, whom psychologists Gelb and Goldstein studied, to show us that the 'intentional arc'<sup>35</sup> (in other words, the function that gives meaningful unity to our lives) in Mr Schneider's world went 'limp' (PP:136). Mr Schneider was an injured war veteran who could neither revert to abstract movement nor create for himself

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<sup>35</sup> The intentional arc is that which projects around us our past, our future, our human setting, our physical and moral situation and which brings about the unity of the senses, intelligence, sensibility and motility (PP:136).

an imaginary world of make-believe and spontaneity.<sup>36</sup> Merleau-Ponty described the reason for Mr Schneider's pathology as vesting neither in his (in)ability to move nor in his intellectual faculties, but rather in the fact that movement is tied to a certain background: every 'movement and its background are "moments of a unique totality"' (PP:110).

The background to normal concrete movement is the given world, and the background to abstract movement is created or built up by the body-subject (PP:111), and both forms of movement are part of the unity of one's 'intentional arc'. An important aspect of Merleau-Ponty's phenomenology of the body-subject-world relation is that our bodily experience of movement is our way of access to the world and to objects.

#### 2.4.2 Motility and perception

Merleau-Ponty's interpretation of the Schneider case was intended to show that the body-subject is the giver of meaning in our life. Thus Mr Schneider's perception was limited in the sense that he had no integrated threads of meaning in his life, as he could only perceive what was present and actual. Mr Schneider could not function in the sphere of the imaginary. He could perform the action of grasping (*Greiffen*), but he could not show, point or indicate (*Zeigen*). Although both abstract and concrete bodily movements may be similar, what distinguishes them is the practical significance of the concrete movement as opposed to the formal or abstract nature of the abstract bodily movement.

For an empiricist, the causal explanation does not account for the differences in context and their significance. For the intellectualist or idealist, Mr Schneider's inability to perform in a virtual milieu can only be accounted for in terms of the presence or absence of the function of intentionality. However, intellectualism cannot account for 'degrees' of intentionality, because intentionality is not totally absent in the case of Schneider in terms of abstract movement (cf. Bakker, 1965:80; Dillon, 1997: 33-134). Merleau-Ponty claims that in the union of mind and body there is an intentionality that is expressed in pre-reflective bodily movements, which, in the case of Mr Schneider, has gone 'limp' (PP:136).

Merleau-Ponty discovered from Goldstein's studies that abstract movement 'superimposes upon physical space a potential or human space' (PP:111). Concrete movement happens against a given background, while a virtual background is projected upon it in abstract movements (PP:111). It is particularly interesting to note how much I rely on and make use

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<sup>36</sup> In fact, Mr Schneider was 'stuck' in actuality, in the present concrete world.



of abstract movement in my teaching practices to illustrate aspects of design and construction principles. One example is when I pace in two directions in the studio to indicate to a student an approximate distance, and point to a visual reference point, say, to the ceiling, to illustrate a certain height in relation to mine, especially in showing the student a certain space which he or she has drawn in two dimensions. In this case, abstract movement is a necessary tool to 'bring' anthropomorphic aspects in spatial design 'to life'.

For Merleau-Ponty, intentionality also implies the mobility of our consciousness which enables us to move between living in the actual 'here and now' (in which Schneider was trapped) and 'elsewhere and before' (*PP*:124). This mobility is not founded on knowledge. On the contrary, it is conscious mobility which constitutes knowledge. Merleau-Ponty sees this mobility of consciousness as the fundamental function of our intentional life, which possesses the basic power to give meaning and to situate a person (cf. Kwant, 1957:242, 249). Merleau-Ponty reminds us that abstract movement (which projects a virtual horizon upon the background of the general horizon) and concrete movement are situated only in the behavioural dimension (*PP*:124). Our bodily experience of movement enables us to 'access the world and the object, with a *praktognosia*....[m]y body...understands its world....' (*PP*:140,141) (cf. also Wolff, 2009b:1-15).

In movement, my body assumes (embodies) space and time (*PP*:102). The synthesis of time and space is a task that one's body always has to perform 'afresh', and bodily movement is the root of this opening of being to meaning (*PP*:119). Merleau-Ponty also explores the bodily potential for movement in his essay 'Eye and Mind' (*PrP*:162): 'In principle all my changes of place figure in a corner of my landscape; they are recorded on the map of the visible. Everything I see is in principle within my reach, and is marked upon the map of the "I can".' For Merleau-Ponty, vision and movement are both total parts of the same Being. (*PrP*:162). A great discovery of Merleau-Ponty's in *PP* is the discovery of *sens* in movement, in which *sens* becomes a new meaning inherent in bodily motility (Morris, 2008:81).

*Sens* is thus not meaning abstracted from the world; hence Merleau-Ponty's later writing on the 'tacit *cogito*' that roots thought in a corporeal ground. Morris (2008:81-83) explains that in Merleau-Ponty's analysis, *sens* and expression are inseparable: *sens* clings to the 'folds of body-world movements', while the moving body is already an expressive body; *sens* arises in the gestures of expression. Merleau-Ponty argues that expression is a creative

primary<sup>37</sup> language, a sense-giving intention that is not mere representational or ‘commonplace utterances’ (in some art forms, such as poetry); we have to go back to the ‘primordial silence’ and describe the action that breaks this silence<sup>38</sup> (PP:183,184).

I have so far only spoken about bodily motility, but Merleau-Ponty also worked out a description of the perception of the moving object, in which he concludes that the relation between the moving object and its background ‘passes through our body’ and that the body provides the perception of movement ‘with the ground which it needs in order to become established’ (PP:279). As a power of perception, ‘it is rooted in a certain domain and geared to the world. [Thus] rest and movement appear *between* an object, which in itself is not determinate in relation to either, and my body of which, as an object, the same is true when my body anchors itself in certain objects. Like top and bottom, motion is a phenomenon of levels’ (PP:279). The body is thus the mediation of the relation between the moving object and background (PP:178).

### 2.4.3 Introducing Gestalt to phenomenology

In his development of his concept of the unity of the body and soul in *SB*, *PP* and *VI*, Merleau-Ponty retains and transforms the conception of a structure or *Gestalt* as a third notion between ‘facticity’<sup>39</sup> and ‘thing’ in his search to overcome the two poles of Cartesian thought (*SB*:4, *VI*:xxi).

Merleau-Ponty describes how the body and soul flow into each other to become aligned. In this, he succeeds in overcoming the philosophical duality of Cartesian thought. Merleau-Ponty endeavoured to explicate the relations amongst the sciences by means of his re-interpretation of the notion of a *Gestalt* that is not reducible to either the object or the subject. The different sciences have their ‘domains’ that were built on different behavioural *Gestalten* from which the sciences would take on different forms (and not different substances as per Cartesian thought) on a global scale, which Husserl calls ‘regional essences’ (Kisiel, 1970:260-261).

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<sup>37</sup> By a primary language Merleau-Ponty means the creative process wherein the emotional content of a word goes beyond the gestural sense, such as poetry: the vowels and phonemes in many ways ‘sing the world’; they capture and express (existential meaning and) the emotional essence of things, and thereby rise above the mere representation of ‘ready-made’ meanings that arouse second-order thoughts (PP:185-187).

<sup>38</sup> Merleau-Ponty’s reference to the primordial ‘silence’ brings to mind Heidegger’s ontology.

<sup>39</sup> ‘Facticity’, a Heideggerian term, means ‘thrownness’ (cf. Heidegger, [1953] 1996, §35). Our facticity therefore means that being which is in the mode of being-in-the-world.



Analogous to the notion of the unity of the 'body' and 'soul', Merleau-Ponty re-interprets the *Gestalt schema* for the sciences to show that the universe cannot be separated into a series of distinct objective domains for each science. Each domain has to be viewed as part of the whole; thus the human and natural sciences should have a series of 'fields' or 'worlds' that mutually include each other. Similarly, the normal human body can be explicated in terms of the essential experiences and should be described phenomenologically.

Sometimes human behaviour shows abnormalities, illness, fatigue and defects. These instances highlight the interrelation between the human body and the specific environment in which that human body finds itself. This proposition can be traced back to Merleau-Ponty's notion of the organism and milieu-relation in *SB*. The analogy between the sciences (physics, biology, psychology, and so on) as symbolic behaviour (*Gestalt* figure-ground relations on a horizontal level, and vertical *Gestalt* relations of 'body and soul') and the human behavioural *Gestalt* was the basis for Merleau-Ponty's new structure for the sciences (Kisiel:261-262). The 'fusion of body and soul' in our being-in-the-world can also be hermeneutically interpreted as the fusion of horizons of the natural and human sciences, and as an analogue to inter-cultural and inter-human understanding.

Merleau-Ponty's notion of 'intertwining' in his last work ontologically underpinned his new structure for the sciences. The focus was the way that human meaning, culture and symbolic behaviour are all to be laid bare for our research and analysis by means of a phenomenological study of human perception in the lived world. This must be underpinned by a phenomenological study of the human body as the basis for the study of human perception, which in its turn could show the relation between philosophy and the sciences (Kisiel, 1970:256,259).

In normal perception, *Gestalt* theory teaches us, we perceive a figure against a background. For instance, when listening to music, we hear a melody instead of distinct musical notes; the perception of a *Gestalt* includes the individual and collective senses (cf. Dillon, 1997:66; Gordon & Tamari, 2004:17). Elementary perception is already laden with meaning, because any form of perception requires the consciousness to bestow meaning on it. Merleau-Ponty describes sense experience in a very creative manner, by referring to inductive psychology's experiments on the effects of colour (by employing certain stimuli for a short duration before being seen) on bodily experience thereof.



The qualities (for instance, of the colour yellow) have a specific bodily attitude towards that colour (the motor basis of the qualities are revealed) (*PP*:210,211). Before becoming an objective spectacle, the quality (yellow) is revealed by a particular behaviour of my lived body that is directed towards that quality in its essence. The moment my body reacts to it, I am a ‘quasi-presence’ of that specific colour. The painter Kadinsky claimed that green is a restful colour and makes no demands on us. Goethe believed that blue ‘yield[s] to our gaze’ and red ‘invades the eye’ (*PP*:210). Colour (sense experience) is therefore an amplification of our motor being. Merleau-Ponty writes, rather poetically, that ‘we must rediscover how to live these colours as our body does, that is, as peace or violence in concrete form’. In this way, Merleau-Ponty proposes that sense experience is a power we are born into, at the same time as we are born into a certain existential environment and thus become part of a situation within a setting (*PP*:211-212).

The terms ‘theme’ and ‘horizon’, which Koffka, Wertheimer, Katz and Gurwitsch developed further (Dillon, 1997:66), replaced the terms ‘figure’ and ‘ground’. In *PrP*, Merleau-Ponty already suggests that we cannot apply the classical conception of form and matter to perception, because the perceiving subject is not a consciousness which ‘deciphers’ our perception according to an ideal law: ‘Matter is “pregnant” with its form’ (*PrP*:12), because meaning and sign as well as matter and form in perception are all related from the beginning (*PrP*:12,13; *PP*:127). With this comment, Merleau-Ponty means that the ‘senses and one’s own body generally present... a collective entity which, without abandoning its thisness<sup>40</sup> and its individuality, puts forth beyond itself meanings capable of providing a framework for a whole series of thoughts and experiences’ (*PP*:126).

He goes on to the idea that a synthesis takes place which constitutes the unity of perceived objects; it is a pre-conscious synthesis which gives meaning to the perceived objects (*PrP*:15). Perceptual synthesis is not only a cognitive act, but occurs also in the movement of my body, which is in its turn temporal. Now movement and bodily motility also give meaning, for example, when I hold a marble between my right forefinger and right thumb, I only experience its form and texture by ‘rolling’ it with and between my fingers - thus the meaning of the marble is created in the act of movement.

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<sup>40</sup> This is precisely what Cézanne accomplishes in his art by replacing the Renaissance perspective’s ‘gaze into infinity’ with an expression of embodied, lived experience of objects in the spatial setting from and of multiple perspectives. Cézanne captures the ‘thisness’ and ‘hereness’ of lived experience in his use of colour and perspective to ‘give birth’ to outline and form; the *Gestalt* (as re-formulated by Merleau-Ponty, in which perceptual constancies are only applicable on the horizontal plane) (cf. Merleau-Ponty, [1948] 2004:18 and *PP*:46 footnote).

Merleau-Ponty describes this instance of perception as a synthesis of the object that is affected by the synthesis of my body, which responds or replies as a correlate to it, insofar as that the single marble is perceived with two fingers applied as one organ (*PP*:204-206): 'Its perceived, meaningful identity is achieved in the synthesis inseparable from the moving body and things.' The perception of a *Gestalt* is more than a theme in a horizon or figure-background structure; for Merleau-Ponty it is rather a 'figure-*sens*-background structure', in which *sens* (of hidden or possible perspectives) 'infuses' the figure-background with 'pre-propositional' meaning. Through *sens* we can grasp inter-subjectivity, as we perceive another being or body (*sens*) that projects toward the world. Therefore, against the double background of our corporeality and the world, behaviour is perceived that has *sens* of another perceiving being (Hass, 1999:94-97).

How does Merleau-Ponty regard sense experience in terms of perceiving wholes? He holds that our senses intercommunicate and that synaesthetic perception is the rule, although we might not be aware of it (*PP*:229). There is an overlap between the visible and the tangible; in the tactile palpation the seer and the seen are closer because 'every visible is cut out in the tangible...' (*VI*:133-134). However, our perceived sensations are never complete and therefore they are anonymous. Merleau-Ponty explains this concept as follows: a person who sees and touches is not exactly 'I', because the visible and tactile worlds are not the world in its entirety; there is always something beyond my gaze or touch.

Because sensations form part of a field to which I have access and they open 'upon a system of visible beings' which are accessible to my gaze by means of a primordial contact, it follows that, in this instance, vision and touch are impersonal and surpass the present field in a horizon of things that are not seen or touched. Therefore 'vision is a thought subordinated to a certain field, and this is...called a *sense*' (*PP*:216,217). Here Merleau-Ponty writes about the unmediated vision of a 'lived' setting, I believe, and about also the vision of a representation of a setting in a painting, which is based on only visual perception - Merleau-Ponty writes of a painting: 'Light, lighting, shadows, reflections, color....they have only visual existence....they exist only at the threshold of profane vision...' (*PrP*:166).

He describes the hand pointing at us in Rembrandt's painting 'The Nightwatch': we can perceive the spatiality in the painting by means of a crossing or meeting place of two lines of sight, namely the figure (the hand) and the background, which is painted as a play of



shadows and light around the figure: 'But it works in us without us; it hides itself in making the object visible. To see the object, it is necessary *not* to see the play of shadows and light around it' (*PrP*:167). My visual perception of this painting is, in Merleau-Ponty's terms, something that I 'inhabit' when I look at the painting, and from this habitation I can grasp all things in terms of the aspect which they present to the object (*PP*:67-69). We must remember that even my gaze through which 'I already perceive from various angles the central object of my present vision' renders the object and my perception inexhaustive.

Looking at Rembrandt's life-size painting, I reflect on myself experiencing that moment. It is necessary to add that the pure physical size of the figures in the painting also magnifies the spatiality within the painting. On reflection, I can say that the visual 'inhabitation' of the scene represented on a two-dimensional surface invokes the feeling of potential movement, of my body's 'I can'. When I look at the painting, potential tactile experience of the visual is part of my bodily experience. There is a logic of the world to which my body (in its entirety) conforms, and through which inter-sensory perception becomes possible. My body is capable of synergy, and knows the significance of my total experience.

Merleau-Ponty claims that to have senses is to possess those general settings or frameworks of potential sense-type relations that help us to take up any given sensory grouping. My body possesses 'a universal setting, a schema of all types of perceptual unfolding and of all those inter-sensory correspondence which lie beyond the segment of the world [which we actually perceive]' (*PP*:326). Herder's comment (cited by Merleau-Ponty) that '[m]an is a permanent *sensorium commune*<sup>41</sup> (*PP*: 235), who is affected now from one quarter, now from another' is a new notion of the body image for Merleau-Ponty; it is a new description of the unity of the body, and the unity of the senses and the object. Here we again notice the germination of Merleau-Ponty's later ontology of the flesh when he also says: 'My body is the fabric into which all objects are woven...' (*PP*:235). My body gives significance to natural and cultural objects, such as words or music, which induce certain bodily experiences or an event that 'grips' or 'moves' me.

For Merleau-Ponty, the experience of perception is 'our presence at the moment when things, truths, values are constituted for us' and that perception is a 'nascent *logos*' which teaches us that each form of perception is the birth of knowledge. Mental assemblages of sense experience do not constitute knowledge about the world; rather, knowledge is 'to

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<sup>41</sup> Merleau-Ponty draws an analogy between communion in Christian practice and the integration of the senses.

recover the consciousness of rationality' (*PrP*:25). Merleau-Ponty intensifies his focus in the last chapter of *PP*, claiming that perception is (based on Husserl's view) 'perspectival', 'inexhaustive' and 'temporal' and a paradoxical experience of both immanence and transcendence. Perception is a unique act (an act *sui generis*): it does not coincide with continuous states of consciousness, nor is it a logical organisation of thought (cf. Bakker, 1977:368).

Although Merleau-Ponty says that there are many ways for consciousness to be conscious, he believes that perception is an original modality of consciousness and that all thought is founded in perception. Because we are always immersed in the world, we are perceptually present (*PrP*:xvii,12). However, perception is not an act of understanding or intellectual synthesis, but perception is, as Husserl held it, 'synthesis of transition' or a 'passive synthesis' which means that 'I anticipate the unseen side of [an object, in this case] the lamp because I can touch it - or a "horizontal synthesis" of perceptual consciousness as opposed to the "active syntheses" of imagination and categorical thought' (*PrP*:15; *N*:74).

When I design a new building, an 'active synthesis' takes place: I imagine myself walking through the different spaces. In my imagination, I have clear ideas of the sense qualities of the spaces, for example, the colours and textures of the walls and floors, the ambient temperature and the amount of natural light and sun-lit areas. I can almost smell the materials, such as concrete or timber, and hear the wind moving through the trees outside. It is the primordial experiences (and therefore the processes of passive synthesis in my perception) that make the imaginary and subsequent visual representations of space meaningful and significant.

Let me explain this with the aid of an analogy. If I were tone-deaf, my primordial experience of music will have a specific meaning, and to imagine or replay a melody in my thought will be based on the actual experience thereof, that is, grasping or conceiving of the melody differently from the way, say, a violinist would. In the same way, I believe the richness of our primordial pre-conscious experience of space depends a great deal on our innate bodily sensitivity to our spatialized worlds. One person's bodily 'grasp' in spatializing space might be 'better' than that of others, even as all human beings 'learn' to live our bodies intertwined with our worlds.

Perception is a synthesis of all that is in (and beyond) my sensory field, as possibilities to be perceived. Thus, perception is the bodily notion of 'I can'. Although 'passive synthesis'

is at play, my body takes up a certain way of inhabiting the world, which implies action. This is one of the instances that I believe shows the ambiguity of perception as simultaneously active and passive.

#### 2.4.3.1 *The body schema*

The concept of the *body schema* or ‘body image’ derives from *Gestalt* psychology. Merleau-Ponty recognised the value of the concept and its role in bodily perception and therefore devoted himself to developing his own ideas on this basis.

The *body schema* is crucial to our sense of perceptual identity and unity as things. It is a function that enables the finely co-ordinated movements that the thing elicits (Morris, 2008:116). For Merleau-Ponty, the *body schema* emerges due to bodily action within the world, and as actively ‘taking up’ the expressive unity of the body. Within this phenomenon, the *body schema* communicates a meaning-direction (*sens*), both to the body and to the world (cf. Hass, 2008:82; Morris, 2004:35). The main achievement of *Gestalt* psychology for Merleau-Ponty was that it recognised that the structure of behaviour is accessible from within and without and that behaviour is ‘melodic’ in terms of its solutions to problems (Morris, 2004:23).

The body image becomes the law by which our bodily spatiality is constituted (*PP*:98,99). It is a total awareness of one’s posture in the inter-sensory world and the body image is the way to say that my body is in the world<sup>42</sup> (*PP*:101). *Gestalt* psychology establishes that the body image is a ‘form’, but even the *Gestalt* theory fails to provide an adequate application of perceiving wholes, according to Merleau-Ponty. Drawing on psychology, Merleau-Ponty includes behaviourism in his notion of perceptual ‘wholes’, and establishes a dialectical concept for the structures of human behaviour.

The dynamic motility of the body image<sup>43</sup> means that the body being-in-the-world has to be understood in terms of actions to be fulfilled, tasks and free space which ‘beckon’ in advance, eliciting certain potentialities and possibilities for the body for action, which shows that the pre-reflective ‘I can’ of the body precedes the ‘I think’ of consciousness

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<sup>42</sup> The *body schema* or body image differs from one’s ‘biological’ body in that instruments can be incorporated into the *body schema*. Merleau-Ponty uses the example of the blind man’s cane. This notion of embodiment is discussed in more detail in Section 2.6.

<sup>43</sup> The significance of the body schema or body image in Merleau-Ponty’s phenomenology is his appropriation of the body image that he soon developed into the notion of a dynamic (bodily) motility that requires the body to be placed in the world in order to be examined as an entity in its own right (Macann, 1993:173,174). (As already explained, empiricism and intellectualism could not regard the body as such.)

(Macann, 1993:173,174; Madison, 1981:24). This notion resonates with Poincaré's reference to one's body as the measure of distance and the way in which external perception relates back to my perception of my body and the fact that my body image is dynamic and changeable - Merleau-Ponty says:

Every external perception is immediately synonymous with a certain perception of my body, just as every perception of my body is made explicit in the language of external perception....The theory of the body image is, implicitly, a theory of perception.(PP:206)

## 2.5 The social world

The social aspect of our existence in Merleau-Ponty's thought is the origin of language. In other words, expression presupposes inter-subjectivity, and through our bodily motility communication and other forms of expression, such as poetry, music, painting, each performed in our individual styles, take place. This makes us part of history, as Merleau-Ponty believes that history is not a series of events but rather people in the world - as he puts it: 'history is other people'(PrP:25).

Merleau-Ponty argues that there is no such thing as an 'inner realm' in which a pure subjectivity or consciousness resides. On the contrary, a 'self' or a *cogito* can only exist in relation to a situation; a *cogito* can only exist in a world of both things and other people. Therefore I can only conceive of myself as an 'I' or a 'subject' when I am aware of other subjects or 'I's' from whom I can distinguish myself. In its contact with the world, the body always transcends itself, just as language transcends itself, and, once spoken, language outlives itself (PP:392). Merleau-Ponty's notion that we co-exist and have communality with others via our corporeity is coherent with the transcendental character of the body. In VI, Merleau-Ponty conceives inter-subjectivity anew as an intercorporeality (De Jonge, 2002:23), inasmuch as different subjects are specific instances or configurations of the same flesh.

Meeting the other takes place in the corporeal sphere: as a spontaneous and immediate reciprocity of meaning, where meaningful bodily gestures supplement one another (Bakker, 1965:76). To have communality with others means that we share the same world, and this is achieved by language, which is the 'cultural object' that plays a crucial role in the perception of others (PP:354). Language constitutes a common ground for myself and other people, as through language 'my thought and his[or hers] are interwoven into a single fabric...we have here a dual being'(PP:354). In his essay 'Eye and Mind', he writes that this

interwoven inherence of the sensing in the sensed (the self), that sees and is seen ‘has a front and a back, a past and a future’ (*PrP*:163).

We are primarily social beings, and while ‘we acquire our habitual yet changing ways of inhabiting and moving in our world’ (Morris, 2004:23), the changeability of perception has a social and a habitual aspect. This dynamic aspect of our being in society is also made possible because there are no fixed objective frameworks for perception (*PP*:362) - it depends on and is derived from the *situation* of perception. This notion of Merleau-Ponty’s plays a paramount role in our experience of built space, which I shall explicate in Chapter 4. Morris (2004:23) uses the term ‘labile’ perception to specify ‘an alterability that can itself alter’.

To sum up: in addition to the natural world, the social world is already a permanent field or dimension of our existence (*PP*:362). Merleau-Ponty maintains that the social is not an object from a third person point of view, rather, our relation to the social, just like our relation to the world, is ‘deeper than any express perception or any judgment’(*PP*:362).

### 2.5.1 Culture

In my world I find the ‘interweaving’ of other patterns of behaviour with my own. According to Merleau-Ponty, my inter-subjectivity is woven into my subjectivity (*PP*:357) in as far as the particularity and generality of my (corporeal) existence intertwine with those things and other persons that co-exist and actively participate in my world.

In the same way that nature, in the form of behavioural patterns, settles in my personal life, nature is deposited in the form of a cultural world (*PP*:347). I have a physical world - I live surrounded by earth, air and water, and I have things made by people around me, such as roads, houses, implements and artefacts (*PP*:347). Merleau-Ponty describes every artefact as

moulded to the human action which it serves. Each one spreads round it an atmosphere of humanity which may be determinate in a low degree, in the case of a few footmarks in the sand, or on the other hand highly determinate, if I go into every room from top to bottom of a house recently evacuated...it may well seem strange that the spontaneous acts through which man has patterned his life should be deposited, like some sediment, outside himself and lead an anonymous existence as things. The civilization in which I play my part exists for me in a self-evident way in the implements with which it provides itself...In the cultural object, I feel the close presence of others beneath a veil of anonymity, and it is through the perception of a human act





and another person that the perception of a cultural world could be verified.  
(PP:347-348)

Merleau-Ponty ties the body of the other to the first layer of cultural sediment: ‘The very first of all cultural objects, and the one by which all the rest exist, is the body of the other person as a vehicle of a form of behaviour’ (PP:348). In this sense, Merleau-Ponty talks about the other’s body not as a vessel that is inhabited<sup>44</sup>, but as part of the world. Thus the other person, like me, has ‘the world as a complete individual, through the agency of [his or her] body as the potentiality of this world, and [he or she has] the positing of objects through that of [his or her] body, or conversely the positing of [his or her] body through that of objects...as a real implication, and because [his or her] body is a movement towards the world, and the world [his or her] body’s point of support’ (PP:350).

By saying that there is an internal relation between myself and the other and that the other is for me the completion of a system, Merleau-Ponty means that I experience the other’s body as a mysterious continuation of my own, and that we are ‘tied together’ in a sort of anonymous existence (Bakker, 1965:78). Different objects of everyday use can be handled by a child, for example, a hammer, without being explicitly taught to do so, but the correspondence between seeing doing and doing it by itself is guaranteed by the child’s bodily *schema*. The same holds for language (Bakker, 1965:78).<sup>45</sup>

Merleau-Ponty uses an analogy between words and tools: ‘As for the meaning of a word, I learn it as I learn to use a tool, by seeing it used in the context of a certain situation’ (PP:403). Used in various contexts, words ‘gradually accumulate a meaning which it is impossible to establish absolutely’ (PP:388). In *The Prose of the World* (PW), Merleau-Ponty shows us that language is lived, willed expression. It is not subjected to essences and concepts, but is a dimension of expression. Therefore, because I use language as an instrument of expression, it becomes possible to progress beyond my own cultural language to express myself in another language (PW:40), which reminds us of Malraux’s explanation that style makes signification possible: we must understand the origin of signification and

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<sup>44</sup> Husserl’s view, (cf. N:74) ‘... I live in my body, and by means of it I live in the things’ was re-defined and developed by Merleau-Ponty. The latter’s conception of the body-subject as being-in-the-world, and later the intertwining was implicitly Merleau-Ponty’s way to express that ‘we live our bodies’; ‘we live our world’, although he used the term inhabit to indicate the body-subject’s relation to space. In this sense ‘we live space’.

<sup>45</sup> Bakker implicitly refers to Merleau-Ponty’s description of the acquisition of habit(s).

its liberation in the creative act in order to understand other cultures, art and languages, for that matter (PW:58).

We must remember that perception runs ahead of thought, so that perception gives me the meaning of what is perceived (for example, a chair), after which the sign of the meaning is used to express the meaning (PW:41). Merleau-Ponty argues that sedimentation is the settling of culture into things (PP:130). Given that Merleau-Ponty claimed earlier that the body is the first object of culture, one could say that sedimentation is the settling of people into the results of their production. The physical and the social world always functions as a stimulus to one's actions, according to Merleau-Ponty. We cannot conceive of a world other than a natural, physical and social world, and 'we must therefore rediscover, after the natural world, the social world,....as a permanent field or dimension of existence....Our relationship to the social is, like our relationship to the world, deeper than any express perception or any judgement' (PP:360,362).

Apparel for different rituals, established customs and uses such as culinary practices, sleeping, religious practices, social gatherings and forms of behaviour in interpersonal relations, all form part of people's different lifeworlds through the past, which is brought into our present lifeworlds.<sup>46</sup> As Merleau-Ponty suggests, we have different lifeworlds within our cultural practices, for example, the worlds of music, art, science, history, socio-economics, politics, language and technology. Culture is praxis, since the cultural world, according to Merleau-Ponty, is created when we use technology (make ourselves instruments) to 'transfigure the biological needs from which they arise' (PP:88). Similarly, within the cultural world, 'the historical *a priori* is constant only for a given phase and provided that the balance of *forces* allows the same *forms* to remain' (PP:88; Merleau-Ponty's emphases).

In Heideggerian terms, within each epoch, *Sein* discloses itself in a specific way; the *Sein* disclosed itself differently through the Ancient Greeks than through us in the twenty-first century. Our access to *Sein* is through *Dasein*; we have no direct access to *Sein* except through the temporality and facticity of our *Dasein*. Thus, according to Heidegger, our technological era's way of 'revealing' is that it approaches reality (the world, including all

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<sup>46</sup> Bourdieu ([1972] 1977:82-83) posits that '*habitus*.... functions at every moment as a *matrix of perceptions, appreciations, and actions* [which] makes possible the achievement of infinitely diversified tasks', is dialectically related with the objective structures that are 'themselves products of historical practices and are constantly reproduced and transformed by historical practices whose productive principle is itself the product of the structures which it consequently tends to reproduce'. Bourdieu ascribes conflict between age-classes to the differences in each age class's *habitus*'s mode of generation.



our fellow human beings) as ‘raw material’ or ‘standing reserve’ for our manipulation (*Bestand*) (Verbeek, 2000:283). Heidegger uses the term ‘enframing’ (*das Gestell*) (Botha, 2001: 117) as being the essence of technology: ‘[E]nframing is the manner in which Being (*Sein*) manifests itself in the age of technology’ (Botha, 2001:118). Heidegger’s terminology happens through the hermeneutics of its *Dasein* (Heidegger, [1953] 1996, 378-379, §§20-22). (In the following chapters, I describe aspects of some ways in which we experience technology.)

Technology is one of those cultural practices that have changed and influenced our ways of experiencing our world. The common practice and reference to geometry and methods of measuring space are based on the embodied lifeworld to such an extent that they have been embedded in cultural praxes since Ancient Egyptian building practices around 3 000 BC (Fletcher, 1967:13-27; Ihde, 1993:53). In 593-573 BC, the Biblical prophet Ezekiel already described the measurements of the new temple which he saw in a vision. The tools for measuring it, namely a tape and a measuring rod, were handed to him by an angel (Ezekiel 40:3-42:20).<sup>47</sup> In the same period, Pythagoras formulated his theorem on the rectangular triangle, of which the square of the longest side equals the sum of the squares of the two other sides. Euclidian geometry was developed in the third century BC (Rooney 1999:644,1533). These instances show the deep and intricate relationship between technology and culture (the cultural ‘embeddedness’ of technology as Ihde calls it), which can often remain hidden (Veseley, 2004:306) to be viewed as part of the culture instead of being a cultural acquisition.

By means of the eidetic reduction, we can describe that which shows itself at the original intersection between humans and nature, so that we can see that the essence of geometry is a human-made system that is derived from the lifeworld. In a thought experiment, Merleau-Ponty asks what would happen if culture should ‘forget’ or lose its historical acquisitions. If, say, Beethoven’s Ninth Symphony and Euclidean geometry were to be lost, Euclidian geometry is more likely to be (re)discovered, as its foundations are grounded in human bodily praxis (*PP*:390). Ultimately, we live in societies that, in their turn, form part of a global society.

To explicate the global significance of societies’ praxes and their influence on individual bodily praxes, Merleau-Ponty refers to the work of Mauss and Lévi-Strauss. As Merleau-

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<sup>47</sup> All biblical references in this study are to the New King James version (1982).



Ponty explains in *Signs* (S), social anthropology relates society to the human body; both have two poles: they can be understood from within and both tend toward processes (S:114). The importance of the work of Marcel Mauss (cited by Lévi-Strauss, 2001:3,4) lies in his explication of the relation between the individual and group in terms of ‘body techniques’: each mode of behaviour or technique was on Mauss’s account, founded on certain combinations of muscles and nerves which formed a proper and dynamic system.

Each society has its own determinants for its system, which is laid down, learnt and transmitted by tradition (Lévi-Strauss, 2001:7). As early as 1924, Mauss also presented the ideas that symbolic expression is a natural societal phenomenon and that societies’ symbolic expression happens in rituals, customs and societal institutions. Normal individual behaviour is not symbolic in itself. Rather, it is composed of elements that collectively constitute a symbolic system (Lévi-Strauss, 2001:12), which Mauss explored in the concepts of *mana* and *hau* as the principles of exchange and magic (S:116).

The question arises how our modern human ethos might change in the future, as I believe the increasing ethnological movement towards globalisation as mediated through technology may risk the uniqueness and idiosyncrasies within different societies’ symbolic systems, which may be lost in transmission. The ways in which these systems are transmitted are in themselves different forms of *technē*.<sup>48</sup> However, a discussion of this topic falls beyond the scope of this study, so let us return to Merleau-Ponty’s descriptions of the cultural world.

In his description of cultural acquisitions, namely the instruments and artefacts of scientific investigations, Merleau-Ponty insists on the homogeneity of the ‘measured - measuring’, which ‘implies that the subject makes common cause with space. The idea of an incarnated subject is necessary in order to understand the microscope and microphysics. The idea of a reality that includes an infinite series of values is an idea of perception. Perception teaches me the infinite divisibility of space and teaches me that Being is not composed of elements’ (N:99,100).

‘The very notion of scale is an absolutely incomprehensible notion if we do not refer to perceptual experience’ (N:99). Merleau-Ponty also suggests in *VI* that the subject-object gap can be contested by forming a new definition of the ‘real’ that encompasses the contact between the observer and the observed. This notion is discussed in the next

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<sup>48</sup> Cf. Wolff’s (2009a) notion of ‘*habitus*’.

chapter in some more detail, but this is an aspect of Merleau-Ponty's work that would be a useful topic for further future research, as a full discussion of the topic falls beyond the scope of this study.

## 2.6 The habitual body and habit

Merleau-Ponty shows that in experience, the physical and psychical 'gear into each other' (*PP*:77). Mr Schneider's disabilities show that the 'intentional arc' is the place where the personal projects and biological life (which Merleau-Ponty terms 'layers', 'modalities' and 'folds' of embodied experience) intersect. In *PP*, Merleau-Ponty uses various terms to describe these interacting layers or twofold modalities: the habitual body and the personal body, the customary and the body at this moment, the biological and personal existence, that which is sediment and the spontaneous, and the organic and the existential (*PP*: 82, 84, 87,130). As described earlier, my habitual body guarantees my body at this moment. In *PW*, Merleau-Ponty describes the indirect language of signification.

We have individual styles of behaviour and perception and, according to Malraux, 'perception already stylizes' (*PW*:59). Malraux uses the example of a painter's perception of a woman passing by:

She is a unique way of varying the accent of feminine being and thus of human being, which I understand the way I understand a sentence, namely, because it finds in me the system of resonators that it needs...perception...affects all the elements of a body or behavior with a certain common deviation with respect to some familiar norm that I have behind me.' (*PW*:59)

In the spectacle, the painter finds something that is 'subject to a secret principle of distortion'<sup>49</sup> (compared to 'the observable') which, translated onto his canvas, the viewer will see as another 'typical way of inhabiting the world' that is interpreted through a face, a dress, and 'as much through the flesh as through the spirit' (*PW*:60). Merleau-Ponty (*PW*:59) argues that at the heart of the phenomenon of style, we must see it 'emerging at the point of contact between the painter and the world, in the hollow of the painter's perception, and as an exigency which arises from that perception'.

The depth of the meaning of Merleau-Ponty's concept of the body as a work of art or as expression in *PP* becomes clear in *PW*. Merleau-Ponty's descriptions of style (especially in

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<sup>49</sup> Malraux suggests that signification occurs where we subject the given elements of the world to a 'coherent distortion'; and style makes signification possible. It is necessary that we understand the origin of signification in order to understand any other creation or culture (*PW*:58,60).



his later work) could also be interpreted as an analogy of the habitual body. Edward Casey (1984:280)<sup>50</sup> says that within habit lies character, virtue and style, and these three exist in an inextricable mixture of behaviour and intention, mind and body. Casey refers to Bergson, who first attempted to distinguish ‘habit memory’ from ‘image memory’ from which Bergson moves on to Ryle’s notion of ‘knowing-how’<sup>51</sup> in his analysis of habit (cf. Casey, 1984:279,282). Casey describes Merleau-Ponty’s philosophy as a philosophy of depths of two kinds: the depth of the body itself in thought and habit, and the depth that the past supplies to anchor our temporal being.

Both kinds of depth are grounded in the world by means of our bodies. Merleau-Ponty posits that we cultivate habits and that this cultivation causes a renewed or changed body image (*PP*:142), as well as a bodily understanding of its significance. A habit is to involuntarily act according to a set of ‘rules’ required reaching a certain outcome. These outcomes may or may not be desired outcomes.<sup>52</sup> To be more precise, habit is the motor grasping of a motor significance (*PP*:143). Motor habit throws light on the nature of bodily space, which means that generally a habit lets us understand the general synthesis of the body. Thus, every motor habit is equally a perceptual habit (*PP*:152). For the body to understand ‘is to experience the harmony between what we aim at and what is given....the body is our anchorage in the world’. Merleau-Ponty describes habit also as ‘a knowledge bred of familiarity’, and ‘sedimentation’ (*PP*:144,130,441).

The terms ‘everyday life’, ‘generality’ and ‘familiar horizons’ already imply a high level of motor and perceptual acquaintance with our lifeworld, which I believe largely contributes to our repertoire of pre-reflective behaviour and a level of ‘absent-mindedness’ in our operations. For example, I have become accustomed to my house to the extent that I immediately and without looking reach for the light switch on my way to the kitchen. There is also, I believe, a degree of perceptual desensitizing in our habitual actions, which through our ‘double reflection’ can be viewed with a new ‘wonder’. In the absence of such reflection, I would argue that our experiences in our lived worlds may seem mundane and, on the surface, insignificant.

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<sup>50</sup> Edward Casey is well-known for his explications of Merleau-Ponty’s concepts of space, memory and embodiment. I found his arguments insightful, especially on these aspects of Merleau-Ponty’s philosophy; hence the frequent references to him in Sections 2.4.1 to 2.4.3.

<sup>51</sup> Merleau-Ponty describes this notion as ‘the body understanding its world’ and also a ‘praktognosia’, that is the bodily experience of movement which provides access to the world and objects (*PP*:140). Merleau-Ponty links this bodily knowledge to the body image.

<sup>52</sup> I owe this definition of habit to Wolff.



‘Sedimentation’ is described by Merleau-Ponty especially in relation to language and history. In *PW* (110), Merleau-Ponty writes: ‘Man feels *at home* in language....’. This metaphor of dwelling is a phenomenological concept that indicates our familiarity and acquaintance with the world.<sup>53</sup> But while we feel at home in language, the way in which we use language can become superficial expression: one can have a verbal conversation without really having any communion with the other person. I believe that this superficiality is born of habit. We may apply the general gestures of good manners (as a cultural acquisition) by using meaning-laden words as meaninglessly, in an almost pre-programmed way; we are merely talking without thinking or really saying anything. By contrast, I can experience communion with a close friend in the silences of unspoken words.<sup>54</sup>

I believe that habits, cultural habits and rituals, can become ingrained in our everyday lives to such an extent that we run the risk of losing part of our authenticity and our unique ways of being-in-the-world. Interestingly, the seemingly spontaneous applause after a magnificent musical performance is a cultural habit, but in my opinion, the act of clapping hands as a sign of a positive emotion may show us the intertwining of pre-reflective affective bodily behaviour. Merleau-Ponty suggests that if the world is perceived as the theatre of our patterns of behaviour, our bodies must possess stable organs and pre-established circuits (habit acquisition is a condition) in order to ‘acquire the mental and practical space which will theoretically free [us] from [our] environment’ to allow for reflection’ (*PP*:87).

Merleau-Ponty believes that sedimentation implies bringing the past into the present to be constantly renewed, and memory is our intentional threads from the horizon of our past that are brought into the present (*PP*:86). For Merleau-Ponty, the synthesis of time and space is a task that one’s body always has to perform ‘afresh’. Within these structures of

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<sup>53</sup> The notion of ‘habitus’ as worked out by Wolff (2009a) is applicable to what I believe Merleau-Ponty means by ‘dwelling’ and ‘inhabiting’. Wolff (2009a:10) writes:

*Habitus* is the bodily, pre-reflective, pre-predicative mode of existence of “I can” (Merleau-Ponty). *I can* is the way in which the body is familiar with the *world* - familiarity in a non-intellectual, non-consciousness-centred way, but without excluding the consciousness; *I can* means having to do with matters in such a way that a horizon of familiarity takes form, not only in my consciousness, but in my action. The metaphor used in phenomenology to describe this acquaintedness by my very being in the world, is dwelling. The *dwelling*-metaphor helps me to illustrate what this technical prefiguration or pre-understanding is like: it is familiarity or socially and symbolically (culturally) formed know-how. For example, my acquaintedness with my shower (of opening the tap, locating the soap, standing without slipping, etc) is just one element out of a whole bodily “vocabulary” or “semantics” of the kind of action that would be possible for me as agent.

<sup>54</sup> I agree with Wolff (2009c), who suggests that this communion between close friends transcends the spoken word.

time, I believe one has the opportunity to consciously and actively be creative and original, instead of passively taking one's existence as a matter of course.

Habit lies between the extremes of custom and spontaneity. Casey (1984:287) describes 'habitual body memory' as combining permanence with temporality, perception with motor action and self with world. Casey refers here to a form of being that Merleau-Ponty describes in *PP*, namely 'near-presence' or 'ambivalent presence'.

This form of being is like virtuality, as illustrated in the horizon, in things situated behind me, or the phantom limb. These call for 'a middle term between presence and absence', and all these forms of being inhabit the phenomenal field through the lived body that situates us in the field. Casey (1984:287) sums up this idea as follows: 'This body is therefore a "habitual body" or "virtual body" which acts to guarantee the actions of my merely momentary body while enlivening my strictly customary body.' Therefore there is a mediating force situated in the body, which itself is conceived as 'the mediator of a world' (Casey 1984:287).

Being a mediation of the world, one's body 'understands' its practical and imagined worlds. The body projects a cultural world by making and using technical objects and has the power to communicate and think on the literal and figurative levels. Finally, the body creates and uses symbols to mediate the social world (Wolff, 2006:4). Merleau-Ponty shows us the roles that the lived body plays in habit in three ways.

Firstly, my bodily space is 'the matrix of [my] habitual action [and also is] an objective setting; [my] body is at [my] disposal as a means of ingress into a familiar surrounding... [and my body is also] the means of expression of a free spatial thought' (*PP*:104). Merleau-Ponty refers here to the habitual and spontaneous body and to symbolic and concrete space.

Secondly, my body also expresses habits through gestures: '...thought and expression...are simultaneously constituted, when our cultural store is put to the service of this unknown law, as our body suddenly lends itself to some new gesture in the formation of habit . The spoken word is a genuine gesture...'(*PP*:183). In the last pages of *VI*, Merleau-Ponty attempts to show how the perceiving human body as structured for potential future action is 'structured as language'. Referring to Saussure, Merleau-Ponty relates the structure of perception to that of language as a 'diacritical, relative, oppositional system' (*PrP*:201,205). Merleau-Ponty and his friend ethnologist Claude Lévi-Strauss shared an



interest in Ferdinand de Saussure's structural linguistics and its possible applications outside the linguistic domain.<sup>55</sup>

Thirdly, our body gives to our life 'the form of generality, and develops our personal acts into stable dispositional tendencies' that constitute our individual styles (PP:146,147).<sup>56</sup> Our body 'at all levels performs the same function which is to endow the instantaneous expressions of spontaneity with 'a little renewable action and independent existence. Habit is...a form of this fundamental power' (PP:146). Apart from our biological and gestural habits, the body, when necessary, builds itself instruments to be able to achieve the meaning aimed at. Our bodily intentionality is to gain its 'hold'<sup>57</sup> on that which it aims at, even if it becomes necessary for the body, as Merleau-Ponty says, to '[i]ncorporate instruments in our habitual world, [resulting from this bodily intentional necessity] we project around ourselves a cultural world' (PP:146).

This part of Merleau-Ponty's work is especially interesting and important for my study. Here Merleau-Ponty uses the examples of the blind man's cane and a woman with a feather in her hat and also that of a musician (organist) - the organist's body becomes an expressive space. Let us turn to each example to get a unique view of Merleau-Ponty's notion of incorporation - how instruments become incorporated into the body *schema*.

The woman with the feather in her hat automatically, without any calculation, keeps a safe distance from things that might break off the feather. Merleau-Ponty says she feels where her feather is just as we feel where our hand is, and she automatically incorporates the feather into her body *schema*. The hat has 'ceased to be [an] object with a size and volume which is established by comparison with other objects. [It has] become [a] potentiality of volume, the demand for a certain amount of free space' (PP:143).

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<sup>55</sup> Notably the idea that a language is about differentiating between signs and 'thereby constructing a linguistic universe'; that the signs themselves do not have meaning unless they are related to other signs. The meaning of signs therefore lies in their differentiation from other signs which form a system (Matthews, 2002:17).

<sup>56</sup> This stable disposition is what Bourdieu calls *habitus* (cf. Wolff, 2009b), which Bourdieu ([1972] 1977:78) defines as that which produces individual and social practices; which is 'the product of history, [the *habitus*] produces individual and collective practices, and hence history, in accordance with the schemes engendered by history'.

<sup>57</sup> Merleau-Ponty uses the words 'grip' and 'hold' to explain the body-subject's intentional structure; its 'I can' intertwined with the world. I shall refer to this notion again later in relation to the conception of geometry. I do not, however, mean to create the idea that the world is a thing (out there) which I have to manipulate. It is rather a metaphor (which Merleau-Ponty uses in *PP* (77) to describe the psychic and physical conditions that gear into each other) which can be applied to how our bodies and worlds gear into each other, which requires adjustments, for instance, acquiring new habits in order to interact with less effort.

The blind man's stick has also ceased to be an object for him; it is not perceived as a thing in itself: 'its point has become an area of sensitivity', almost as if his senses have extended to the tip of his stick and almost as if the tip of his stick has replaced a biological organ of seeing with feeling. He uses the stick as eyes that feel: 'The blind man is rather aware of [the stick] through the position of objects than of the position of objects through [the stick]' (PP:143). The handling of the stick in order to find one's way amongst things is an acquired motor habit and equally an example of perceptual habit (PP:152); the stick becomes an instrument with which the blind person perceives; the 'hand-stick point of exchange of forces' are replaced by the tip of the stick-world points of exchange between the perceiving body and world. Merleau-Ponty tells us that the stick becomes an extension of the body and is synthesised in the corporeal *schema*. The blind man becomes acquainted with the way of using his stick as he tests the position of things that are immediately within the reach of his extended arm to the tip of his stick. However, there is no comparable estimation between the objective length of the stick and the objective distance to the goal to be reached (PP:152), since he perceives the world 'directly' at the place where the stick and his hand meet.

Merleau-Ponty says that to 'get used to a hat....or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our own body. Habit expresses our power of dilating our being in the world, or changing our existence by appropriating fresh instruments.' (PP:143). 'It thus elucidates the nature of the body image. When we say that it presents us immediately with our bodily position, we do not mean, after the manner of empiricists, that it consists of a mosaic of "extensive actions". [The body image] is a system which is open on to the world, and correlative with it' (PP:143ff).

Brey (2000a:46-48) proposes that the blind man's cane and woman with the feathered hat present two kinds of embodiment. The cane is indeed an example of an embodied artefact that extends a perceptual human faculty, while the example of the feathered hat is an example of the woman's tacit knowledge of the location of the feather in terms of her environment<sup>58</sup> and not an extension of a perceptual sense. I partly agree with Brey, however, that because the feather is incorporated into the woman's body *schema*, she has acquired a new style of movement. Because she has an innate knowledge of the spatiality

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<sup>58</sup> Brey (2000a:48) argues that there is tension in Ihde's work in terms of the different notions of embodiment relations which is to be resolved by returning to Merleau-Ponty's original account how embodiment relations are developed, and to serve as a proto-theory for an extended version of different kinds of embodiment relations which includes Ihde's notions thereof.

of her own body (Brey, 2000a:48), she would not bump against a door frame with or without the feathered hat. Since the feather is incorporated into her bodily spatiality, the feather might just as well be a ‘virtual’ extension of her tactile sense.

Brey (2000a) adds that the woman does not perceive the world through the feather (as the blind man does through his cane), nor does she gain knowledge of the world in the form of direct feedback as mediated through the instrument, thus, the primary function of the embodied artefact (feathered hat) is not to mediate perception. Embodiment relations are very often behavioural and pro-prioceptive (cf. Brey, 2000a:46).

Artefacts incorporated into the body *schema*, such as a hammer or a pen, mediate interactive skills. Limited perceptual feedback from the environment is obtained (such as the texture of the paper one is writing on), since the artefacts’ primary function is to act on the world (Brey, 2000a:54),<sup>59</sup> while various artefacts in an embodiment relation mediate both perceptual and motor skills to function in an interactive manner. Merleau-Ponty’s example of the blind man’s cane is such an instance: firstly, a motor skill is acquired in using the cane and through its skilled use; it withdraws as he learns to negotiate different floor surfaces, ramps and so on, which he can feel through the tip of the cane. Our engagement with the world is mediated through our body’s notion of ‘I can’ (*PP*:137), with or without the mediation of technological artefacts.

These two examples explain how the cultivation of habit is the bodily motor grasping of a motor significance (*PP*:137). In this regard, Merleau-Ponty quotes Grünbaum: ‘Already motility, in its pure state, possesses the basic power of giving meaning (*Sinngebung*)’ (*PP*:142). The poetic description of how the body becomes an expressive space is elucidated by Merleau-Ponty as he writes about the organist. This, I believe is what Merleau-Ponty means by how habit expresses our power of ‘dilating’ our being in the world; and through which a person’s style creates unique expression: as the organist acquaints herself with the instrument on which she has to play for a concert (a different one from the one she usually practices on) her body quickly grasps it:

She sits on the seat, works the pedals, pulls out the stops, gets the measure of the instrument with [her] body, incorporates within [her]self the relevant directions and dimensions, settles into the organ as one settles into a house. Between the musical essence of the piece as it is shown in the score and the

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<sup>59</sup> In *PP* (152), Merleau-Ponty says: ‘Learning to find one’s way....with the stick, which [is] an example of a motor habit, is equally an example of perceptual habit. Once the stick has become a familiar instrument, the world of feelable things recedes, and now begins....at the end of the stick.’

notes which actually sound round the organ, so direct a relation is established that the organist's body and [her] instrument are merely the medium of this relationship. Henceforth the music exists by itself and through it all the rest exists. (PP:145)

Some habits, once acquired, need not be 'honed' constantly, for example, riding a bicycle - one's body *schema* has changed and the body has retained the 'knowledge' and know-how of the embodiment relation with the bicycle, in contrast to playing the piano, which requires constant exercise to retain the skill to play a Mozart *concerto*. After years of not practising regularly, I can still play large parts of Mozart's piano *concerto* in F major in tempo, but as soon as I change the tempo to play the more difficult parts, I concentrate on details and it is as if I 'lose' the flow of the music and get stuck. To get back into the 'flow' of the music, I have to start at the beginning of the movement in order to play that difficult section.

However, when I play on the piano I used to practise on in my parents' home, I play fluently. The whole setting, the feel of the digits and the specific sound in the room brings the music back to my body, and as long as I do not look at my hands while playing, it is as if my body inhabits the piano and has not forgotten how to make the music. Once a habit has been established and honed, effort is required to consciously 'unlearn' it, for instance, the constant use of adjectives in spoken language. However, de-skilling takes place over time if a habit is replaced with the acquisition of another skill, for instance, the drawing board that has been replaced by computer-aided drawing (CAD) in architectural education and practice. This phenomenon in architectural design, I believe, exacts a high 'price' that designers pay: in the effort to save time on production, the designer sacrifices his or her unique, skilled bodily expressive 'style' in exchange for 'generic' design practices that depend on the limits of the CAD software.

I believe the loss is greater than mere deskilling by replacing skilled hand drawing techniques on the drawing board with Computer Aided Design (CAD), which loss can be deduced from what Merleau-Ponty asserts on body techniques. In his famous essay 'Eye and Mind' in *PrP*. Merleau-Ponty writes that every technique (for instance, the use of a mirror in a Vermeer painting) is a 'technique of the body. A technique outlines and amplifies the metaphysical structure of our flesh' (*PrP*:168). Just as the blind man's cane becomes fully incorporated into the body schema through technique, the painter, the organist and the woman with the feathered hat have practised and learnt the techniques (acquired habits) that become visible and *manifest as their unique styles*. Individual and unique expressive



style somehow is ‘lost’ in the anonymity and mechanical appearance of CAD drawings. All our motor habits and corporeal intentionality are designed to show us that ‘the flesh is intrinsically purposive’ (Dillon, 1997:139).

We inhabit space and time, according to Merleau-Ponty. The importance of Merleau-Ponty’s belief that to be a body means to be tied to a certain world becomes clear when he explicates the concepts of habit and inhabiting: to inhabit means ‘to live in or dwell in’ (Casey, 2000:191). I think that Merleau-Ponty implicitly included the concepts of ‘*habere*’ (‘to possess; to have’)(Casey, 2000:190) and ‘inherence’<sup>60</sup> with the relation of body and space-time. We pre-self-consciously learn to inhabit something, just as we perceive. Being-in-the-world does not just happen, with our bodies endowed with automatic skills to get a maximum hold<sup>61</sup> on our setting; instead, we are born with these potentialities to be developed into skills, as we learn to live (in) our bodies and to act in the world. What we learn from bodily motility is that bodily experiences impose meaning - my body is thus ‘that meaningful core’ and in experience ‘we learn to know [the] union of essence and existence’ which we find in perception generally (*PP*:147).

In Chapter 3, I focus on technology as cultural praxis and a way of seeing, showing how our perception and experience of the world are changed by applying and using technology and its products in different ways. Let us turn to the heart of my enquiry and find out how Merleau-Ponty explicated the experience and perception of space in our inhabiting of our world.

### **2.6.1 Merleau-Ponty’s explication of space and spatial perception**

In this section, I concentrate on the relation of bodily space and bodily motility and perception of lived space. It will become clear that primordial bodily spatiality is the origin of space. To recapitulate: for Merleau-Ponty, perception manifests itself for the pre-reflective subject as a reality that is situated between the ‘for-itself’ and the ‘in-itself’. Merleau-Ponty argues that reflection does not reverse on a path that the constitutive act has already traced in advance; reflection is always reflecting on the unreflected.

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<sup>60</sup> ‘Inherent’ means to exist in something as a permanent or essential attribute. (*South African Concise Oxford Dictionary*. 2002. ‘inherent’.)

<sup>61</sup> Because there is a certain constancy in our world, we can get a certain grip on it. As Merleau-Ponty says: ‘[There is] a certain energy in the pulsation of existence which prevents us from treating [the world] as an act of consciousness’ (*PP*:80).



In contrast to Husserl's conception of intentionality in his transcendental idealism (the experience of the world treated as a pure act of constituting consciousness), intentionality can be approached more directly by looking at the notion of space as a form of perception (PP:242,243). Thus Merleau-Ponty's philosophy is characterised as a philosophy of unity in multiplicity. The body-subject and world are dialectically related, and within this relation the elements of perception such as space can be found (cf. Kwant, 1957:231).

Merleau-Ponty's approach to the question of spatiality and spatial perception is that we can approach the problem in two ways. On the one hand, we could look at space as our living in things *unreflectively*. We could view space as that universal power that connects all things: at one moment as that vague milieu in which things are, and at another moment as a common characteristic of all things. The concrete relation between my body and things appears to me as an 'irreducible manifold variety' (PP:244), as expressed in terms of top, bottom, near or far (we are concerned here with regional, physical space or 'spatialized' space). On the other hand, we could *reflectively* grasp space 'at its roots and think at the moment of the relationships which underlie this word....only through the medium of a subject who shall describe and sustain [these relationships], and passing from 'spatialized' to 'spatializing' space' (PP:244).<sup>62</sup>

In examining the question of whether the conception of space is either a matter of perceiving things in space (the Kantian notion of 'form'), or of space as 'the indivisible system [that governs] the acts of unification [which is] performed by a constituting mind' (PP:244), Merleau-Ponty concludes that we can only study these ways of our conception and experience of space when we look at extra-ordinary situations. It is difficult to explicate certain experiences in our everyday life, such as the experience of 'up' or 'down', in a phenomenological way. He thus refers to the exceptional cases in Stratton's experiments as documented in *Some preliminary experiments on vision without inversion of the retinal image*, and Wertheimer's experiments (PP:245-247), after which Merleau-

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<sup>62</sup> 'In the first case [spatialized space], my body and things, their concrete relationships expressed in such terms as top and bottom, right and left, near and far, may appear to me as an irreducibly manifold variety, whereas in the second case I discover a single and indivisible ability to describe space. In the first case, I am concerned with physical space, with its regions of varied quality; in the second with geometrical space having interchangeable dimensions, homogeneous and isotropic, and here I can at least think of a pure change of place which shall leave the moving body unchanged, and consequently a pure *position* distinct from the *situation* of the object in its concrete context....here we want to compare it with our experience of space....' (PP:224; Merleau-Ponty's emphases).

Ponty postulated a third spatiality which is neither the Kantian notion of things in space, nor that of spatializing space (PP:248).

Stratton's experiments examined the relation between the moving body and an inverted image. Wertheimer tested the relation between a visual oblique image and the static body. Amongst other results, their studies show that the image does not govern our experience of 'up' or 'down', nor when the tactile body links up with the visual body; therefore, 'one cannot take the world and orientated space as given along with the contents of sense experience or the body in itself' (PP:247). Stratton's experiments demonstrate that spatial experience cannot be grasped by looking at the contents in a setting, nor can it be grasped by a pure subjective synthesis. Wertheimer's experiments in the obliquely projected settings show that, even without moving one's body during the experiment, the oblique image could become 'rectified' for the subject; as the body finds certain visual 'anchors' which the objects seem to have attracted to themselves as a 'vertical'. As a result, the physical, stationary setting (the original horizon) 'tilts' to become aligned with the 'vertical anchoring points' in the image (PP:249).

These findings led to the conclusion that the significance of everything that determines space, for example, 'up', 'down', 'there', and so on, depends on an actual starting point, an absolute 'here', which explains the body as the point-horizon in space (PP:246-249, cf. SB:194). Merleau-Ponty writes that normal perception recognizes a previous established *spatial level*<sup>63</sup> as the reference for the way in which the current spectacle appears.<sup>64</sup> This shows that history is inscribed in our bodies as in the world that human beings 'inherited': the world is as already given prior to our personal existence. Having a body also means that

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<sup>63</sup> The spatial level and bodily orientation should not be confused: each spatial level presupposes a previous spatial level. There is no absolute first spatial level anywhere, and that space always precedes itself. In the constitution of a spatial level the tactile body plays a vital role, Wertheimer explains, and, as Merleau-Ponty says: '[M]y personal existence must be the resumption of a pre-personal tradition... [which] is my body' (PP:249-251). It is the virtual body with its phenomenal place defined by its task and situation that is a system of possible actions; this system counts for the orientation of the spectacle.

<sup>64</sup> In an excerpt from Stratton's (1899) test results, he writes about the 'denial of the original spatial character' of one of the senses (either touch or sight) in the experiments, which led to certain behavioural outcomes which Stratton describes: '...the process by which the different sense-perceptions, whatever may be the ultimate source of their extension, are organised into one harmonious spatial system. The harmony is found to consist in having our experiences meet our expectations. When sight suggests some definite place in the touch-field and the object is actually felt in that position, and when touch suggests some definite visual position where the object shall be seen, and it is actually seen there, sight and touch are then harmonious. The essential conditions of the harmony are merely those which are necessary to build up a reliable cross-reference between the two senses. This view, which was at first based on the results with the inverting lenses, is now given a wider interpretation, since it seems evident from the later experiment that a given tactual position may have its correlated visual place not only in any direction, but also at -any distance, in the visual field' (Stratton, 1899:501-502). Merleau-Ponty's brilliance in identifying the notion of 'spatial levels' is apparent.



I have inherited, with the world, innate 'human' structures to be in the world in specific ways (as pre-given bodily potentialities) that develop into habitual structures.

In Wertheimer's experiment, a new spatial level (and one corresponding to the current oblique spectacle) was automatically induced by the body as a corrective mechanism, which shows the deep connection and ongoing dialogue between body and world: 'Space and perception generally represent, at the core of the subject..... the perpetual contribution of his bodily being, a communication with the world more ancient than thought' (PP:254).

Then ultimately, what do 'top' and 'bottom' mean? Merleau-Ponty demonstrates that Wertheimer's experiment proves that the 'spatial level' cannot be identical to the orientation of our body, and Stratton's experiments prove that the space of our perception is neither the space of things, nor a 'spatializing space', but that my body has a form of possession of my world by means of a spatial level (cf. Kockelmans, 1970:282-287).

The crux of the matter lies in the organic relation between the body-subject and space: it is the 'gearing of the subject to his/her world which is the origin of space' (PP:251). Hence, the only method whereby we can understand space, and achieve optimum clarity in perception and our actions, according to Merleau-Ponty, is the body's constitution of a spatial level, which always presupposes another previously given special level. It follows that space is 'always already' constituted. In other words, my bodily actions towards optimum perception define a 'perceptual ground' as a basis or a general setting for co-habitation between my body and the world, therefore my body constantly gears itself towards the world by, for instance, constituting a new spatial level in the light of its tasks (through my body's 'I can') in a specific setting (PP:251) Merleau-Ponty describes the body's innate ability to 'change' spatial levels as similar to transposing keys in singing a melody.

In PP (p.153), Merleau-Ponty explains that 'the primordial level is on the horizon of all our perceptions', but each level appears when 'we cast anchor in some "setting" which is offered to us'. The positing of a level shows us that 'space has its basis in our facticity' (PP:254). In other words, space is already constituted, but only through my embodiment can I conceive of space in a field of vision (as part of and in unison with the tactile and other senses) that gives me a possible reference point (an anchor). Spatial perception is a structural phenomenon of which my body is the subject (of space) within this structure (cf.



Kockelmans, 1957:394, 1970:301). We see the world as temporal spatial outlines, which means that when I look at something, there is a constancy: '[W]hen I perceive, I belong, through my point of view, to the world as a whole' (*PP*:329).

Just as a spatial level is constituted by my body in a specific setting, so my body also constitutes a level in the perception of coloured objects (*PP*:311). Merleau-Ponty writes in this regard that three phenomena, namely lighting, the organisation of a field and the thing illuminated as the object in constancy, are the manifestations of their essential co-existence (*PP*:311) in the perception of colour. Merleau-Ponty says that the reflection of colours and surfaces on the eyes have their function in perception. Because light refraction (which Merleau-Ponty calls reflection) is not perceived directly or perceived as an object, it causes us to see the rest of the spectacle, because light is a mediating element in visual perception (*PP*:308-311). I believe light and colour (to a lesser extent) are as essential to the structure of our natural spatial experience as the constituted spatial level.

By showing us that the origin of space is my lived body, the world also gives us those 'anchors' that teach us how to deal with situations. For example, my body understands gravity: apart from visual spectacles, my body senses the 'meaning' of up and down, and of weight. Even geometrical thinking does not transcend perceptual consciousness because the notion of an essence (for example, the sort of material essence of the triangle in which the words 'up', 'down', 'left', and so on holds meaning) is borrowed from the world of perception. Therefore, because of my implicit general grasp of the world, I can conceive of a geometrical form because it can 'potentially [be] situated in my perceptual field' (*PP*:386).

Oriented space, the world of colour and sound, are taken for granted so that we often experience them as 'in itself'; we forget that the presented (*noema*) has to be seen in its presenting (*noesis*) (Kwant, 1957:242). However, the reduction becomes clear when Merleau-Ponty reverts to pathological cases to illustrate that those things that we take for granted in our experience in the world may indeed be ambiguous, because the pathologies show how the constituted character of the world filters through (Kwant, 1957:231). Merleau-Ponty's phenomenological study of spatial perception ultimately revolves around the statement that 'there would be no space at all for me if I had no body' (*PP*:102).

The body has its own spatiality that exists in action (and is shown in movements such as grasping and pointing), which Merleau-Ponty demonstrates in his comments on pathologies



such as psychic blindness<sup>65</sup> and Mr Schneider's case (*PP*:103). Goldstein even shows that in normal perception, the body and things in contact with the body are difficult to perceive unless there is movement (*PP*:108). The intertwining of our body and world is also expressed in Merleau-Ponty's idea that our body is our point of view on the world; it is the place where our spirit takes on a certain historical and physical situation (*PrP*:5), and being inseparable from a view of the world,<sup>66</sup> the body brings this very view into existence (*PP*:388).

Through our implicit bodily hold on and view of the world, a geometrician (and architect) can construct line drawings that depict lived space and express the essence of form (as the presumption of a completed synthesis (*PP*:387) which is simultaneously an expression of our corporeal possibility for experience.<sup>67</sup> This very important insight by Merleau-Ponty can be combined with the notion that everything that I perceive, 'exactly as I see it, is a moment of my personal history' (*PP*:215). Therefore, we cannot reject mythological space, ritual space or space experiences of my dreams or those in hallucinations, because all these spatial experiences are based on a primordial spatiality in terms of which Merleau-Ponty claims that these experiences are modalities (*PP*:281-287).

This is important for me as architect, because specific spatial experiences are derived from our facticity, which enables me to design by means of a specific skill or technique, a style, a signification that is inter-culturally understandable as the possibility for bodily experience of space or place. Merleau-Ponty expresses our bodily relation to space as verbs: the body 'haunts' space (*PrP*:5); it 'inhabits' space (*PP*:139,429); it radiates intentions in terms of possible movements in space (*PrP*:5, cf. *PP*:109). We 'transport' our phenomenal bodies in space (*PP*:106), and also, my body 'applies itself' to space like a hand to an instrument (*PrP*:5). How does my body do this? Merleau-Ponty may not have described this specific notion in depth, but one discovers a treasure that I believe deserves

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<sup>65</sup> Gelb and Goldstein studied the phenomenon of the patient who, with his eyes shut, is unable to perform abstract movements or describe the position of his body or even his head. He also could not identify a point on his body that was touched by the doctor. (*PP*:102-103)

<sup>66</sup> I believe what Merleau-Ponty means by 'view of the world' is in terms of one's historical horizon fused with the perceptual horizon within a specific situation, and not that which Dilthey termed a 'worldview' (*Weltanschauung*). I believe it could be ascribed to Merleau-Ponty's belief that there is no 'inner man' (*PP*:xi), whereas Dilthey holds that a 'worldview' emanates as expression does, from the inner life (Palmer, 1969:112,114,117; cf *PrP*:86-87).

<sup>67</sup> The constructions of a drawing of a triangle (to use an example) 'possess a demonstrative value because I cause it to emerge from the dynamic formula of the triangle. It expresses my power to make apparent the sensible symbols of a certain hold on things, which is my perception of the triangle's structure' (*PP*: 386). Kockelmans (1970:289) explains that space and perception constantly refer me to my existence and contact with the world that is older than my thinking.

emphasis. Firstly, the body is a 'place', a situation. Secondly, the body is an active intentionality, the notion of 'I can', and the experience of space presupposes motility. Thirdly, the body applies itself to space as a form of habituation.

### 2.6.1.1 Lived space

Lived space is that practical space which is bodily space - it is oriented around the body's physical structure and projects to fulfil the needs of the body. An example of practical behaviour is that I blink, squint and raise my hand to my brow when walking into the sunlight to protect my eyes from blinding and potential damage from the naked sun. This movement will occur pre-reflectively. Merleau-Ponty says this is not a stimulus-response event as empiricists claim, since bodily motility cannot occur in objective space (PP:102,103). Near, far, accessibility, within reach, out of touch, have meaning in terms of bodily motility and the body-subject's notion of 'I can', which shows the body's own intentional structure that is pre-predicative and pre-conscious in lived space.

The spatiality of one's body, according to Merleau-Ponty, is a spatiality of situation rather than one of position (like that of external objects), which means that 'here' does not refer to a specific position in relation to other positions, but to the 'anchoring of the active body in an object, the situation of the body in face of its tasks' (PP:100). In terms of spatial position, the relationship between human beings and objects is not one of distance, but rather that of a 'vertiginous proximity' (WP:66). This relation implies reciprocity. The opposite applies to the differentiation stage in the child's development, when an objective ground is established between her and others: unless the relation of 'vertiginous proximity' (dizzying proximity) is replaced with a 'lived distance', neuroses and other psychological illness set in (PrP:154).

The spatiality of my body becomes evident when an instrument or artefact habitually becomes incorporated into the body *schema*, in which case my body *schema* may change my actions in lived space. The examples of the woman with the feathered hat and the blind man's cane are beautiful examples that Merleau-Ponty uses to explain this concept. In the analysis of bodily space, he tells us, experience teaches us that space and the perceived object are mutually inclusive, that our body pre-reflectively has a 'primitive spatiality' that is part of its being. Thus through the body that I am, I am tied to my world. I am not in space; I am *of* space (PP:148). Referring to Husserl, Merleau-Ponty writes that in our carnal relation with the other, we become human:



I am no longer the universal being of space, but a human enclosed in a sack. My perceptions ... [become] localized events in space and time. I ...become a *Raumding*, a spatial thing. The universe of [things] closes in on me, whereas previously I was a rip, a gap torn open in the world...the idea of a thing-for-X is introduced for every subject that communicates with us. (N:76)

As Heidegger ([1953] 1996:54, §53 )already makes clear in his concept of *Da-sein* or ‘being-there’, which is existential, our very ‘Being-in-the-world’ is already spatial, as it unfolds in our existence. Casey (1997:28) remarks that Heidegger’s language draws heavily on images and metaphors of architecture. The ‘architectural clearing of space’ finds its phenomenological roots in Heidegger’s *Sein und Zeit*. His concern with ‘building’, ‘dwelling’, ‘enframing’ and so forth is a linguistic concern, since he interprets architecture and other phenomena as ‘text’ in his hermeneutical phenomenology (Casey, 1997:28). The ‘text’ or language expresses *Sein* and *Dasein*’s relation to *Sein*.

By virtue of bodily motility, each ‘there’ is a potential ‘here’. For Merleau-Ponty, this tension created by bodily space is the beginning of its transformation into universal space and theoretical space (*PP*:108,109). Bodily motility and its possibilities are grounded in this tension (*PP*:109) and they provide the foundation for spatial orientation where space forms a horizon for multiple possible movements, expressions and so forth. The body-subject’s constructed space provides the background for abstract movement ‘by virtue of the possibilities opened to it by thematization of the “I can,” consciousness is liberated from the immediacy of the bodily projects made in response to the concrete and given context, and may now undertake movements in the human space of potentiality (as opposed to the physical space of actuality)’ (*PP*:109).

Bodily space and universal space derive their meaning in a reciprocal manner: ‘[In its individuality] as bodily space, it contains the dialectical ferment to transform it into universal space... [thus] the point-horizon [figure-ground] structure is the foundation of space’ (*PP*:102). For Merleau-Ponty, every figure will stand out against this ‘double-horizon’ of bodily and external space (*PP*:101). I want to relate this concept to Merleau-Ponty’s notion of the perception of a moving object where my body is the mediation of the relation between the moving object and background (*PP*:178), in which case the structure as depicted above applies and remains unchanged.

Merleau-Ponty explicates his new intentionality by examining the notion of space as a symmetrical notion of a form of perception. Contrary to Kant and Husserl in his second period (Spiegelberg, 1965:162), Merleau-Ponty does not note a relation between space as a



‘setting’<sup>68</sup> for the positioning of things, nor to space as a container. Rather, Merleau-Ponty believes that space is the power that binds things together (*PP*:243). It is important to remember that, just like lived time, lived space or oriented space has its own variable ‘measures’: a great distance in terms of objective space can be experienced as a quite a short distance or vice versa, depending on my mood during the experience. So, for example, when I walk a given distance while happily engaging in an intriguing conversation with my best friend, my experience is that time and hence the distance covered seem to have ‘flown past’ (cf. Bakker, 1965:411-414).

Lived space is also an expression of our cultural practices, for example, our personal space preferences: I may not feel uncomfortable in an aeroplane, sitting very close to (and in economy class, sometimes literally rubbing shoulders with) strangers on both sides. Firstly, we do not have eye contact and, secondly, I form a personal ‘bubble’ around me so that I experience the strangers as being further away.

Similarly, in movie theatres or concert halls, strangers are physically very close to one another, yet communally engaged in watching a movie or listening to a symphony. However, in a business meeting, I may feel more comfortable when conversing across a table, and I would prefer the table to have some form of ‘apron’ or skirting that conceals everyone’s lower body. These are only two examples of unique and common experiences of lived space that we might consider in reflecting on our experiences in built space.

Our perception in lived space and the ‘description of human space ... can be developed infinitely’ (*PP*:287).

### 2.3.7.1 *Depth perception*

How does space reveal its own particularities to visual perception? Can it do so? When I look at a landscape, I cannot see depth itself, so how do I know that there is depth? This is a very important question in terms of the nature of the problem stated in Chapter 1. I am dealing with the primordial bodily experience of space, as well as with the different levels of spatial perception, such as visual perception in a concrete setting, when I am stationary or moving; visual perception of a representation<sup>69</sup> of space in two or three dimensions. In

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<sup>68</sup> Spiegelberg (1965:162) explains that Husserl thinks of the lifeworld as oriented with the living self at its centre. The spatial setting of the lifeworld is then experienced as stationary.

<sup>69</sup> In two dimensions such as the classical perspective drawings on a piece of paper, or in three dimensions, such as a virtual ‘fly through’ computer-generated model of a building, but still perceived on a flat computer screen, unless one is in a Virtual Reality room with all the necessary concomitant bodily apparel.



all these different ways of perceiving (space), I can gain knowledge of others and myself in the world. Let us return to what Merleau-Ponty says about Euclidean and lived space, as distinct from formal geometry.

Merleau-Ponty holds depth to be the most existential dimension of the three Euclidean dimensions that constitute a representation of space that is understandable to and practical for human beings. He argues that depth is the only dimension that belongs clearly to our perspective and not to things. Therefore, depth cannot be extracted from our perspective and nor can consciousness put depth into things (*PP*:256). The problem of depth is that we assume that depth is immediately equivalent to width or breadth (we assume that space is isotropic), because we can move to the side of an object and perceive its breadth. However, it is only possible for God, who is everywhere, to simultaneously see depth and breadth. If we want to understand the origins of depth, Merleau-Ponty says that the phenomenon of the lived world must be described as faithfully as possible. Depth is the dimension of space (more than height and breadth) that requires us to suspend our assumptions and to reveal our original experience in the world, which will show us that depth is existential.<sup>70</sup> We experience depth at the ‘crossing’ or ‘collision’ of body and world (Morris, 2004:23; *PP*: 429).

He reverts to the relation of subject and object to show that depth shows us the inextricable link between things and ourselves, while width and height can still be viewed as relations between things. In an objective setting, the apparent size of the object, the convergence of the eyes and the visual image explains the Euclidean notion of triangulation. Merleau-Ponty says that this ability to grasp the significance of apparent size and distance

is conditioned by my knowledge that there is a world of undistortable objects....My ability to understand convergence as a sign of distance is conditioned by my visualizing my gaze as the blind man’s two sticks, which run more sharply together in proportion as the object is brought nearer....by my inclusion of my eyes, body and the external world into one objective space [can I understand convergence as a sign of distance]. (*PP*:257)

*Gestalt* theory produced the problem of the experience of depth independently from any form of geometry that results from taking oneself out of the mode of reflection into ‘lived’ depth and then re-assigns the production of phenomenal depth to ‘some cerebral alchemy’ where results are only recorded by experience. However, behaviourists refused all meaning

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<sup>70</sup> Cf. *PP*:255-256.

of 'experience'. This dilemma can only be resolved, according to Merleau-Ponty, when convergence, apparent size and distance (which are not signs or causes of depth) are present in the experience of depth, in the same way that motive is present in a decision, where the motivating factor and motivated act are in a reciprocal relation (PP:259).

The phenomenon of 'apparent size' and that of distance are two 'moments' of a 'comprehensive organisation of the field...they communicate through their significance. Apparent size as experience is nothing other than a way of expressing our vision of depth' (PP:259). That is also why Merleau-Ponty was so fond of Cézanne's approach to his world, regarding Cézanne's paintings as the products of his primordial perception, analogous to what *Gestalt* psychology held, namely that perception of changes in shapes and sizes when things are moved away or rotated (such as a disk) happens at a slower rate than we would expect according to geometrical principles of projected perspective.

The apparently distorted perspective in Cézanne's paintings is actually correct in terms of what is perceived in lived space. If the constructed geometrical perspectives were given to us in lived experience, we would not need to 'learn' to construct perspective, as we have to in the Renaissance paintings (PP:260). This geometric perspective is for Merleau-Ponty a style; a form of perception and expression at a certain point in time which was more than a mere technique, since this perspective also indicated the 'position' of the perceiver as dominating his /her world. (PW:53,54,56). Merleau-Ponty does not agree with the whole content of *Gestalt* theory, particularly the theory of perceptual constancy as explicated by Alain, who claims that the perception and intellectual knowledge of the apparent size and shape of objects distributed in a field or meadow remain the same.

Merleau-Ponty responds to Alain's example by commenting that '[p]erception does not draw conclusions about the size of the tree or from that of a man, or about the man's size from the tree's, nor either from the meaning of the two objects; it does all these things at once: the size of the tree, that of the man, and their significance as tree and man, with the result that each element agrees with all the others and composes with them a landscape in which all *co-exist*' (PP:46 footnote,264,265).

Ultimately, Merleau-Ponty regards the visual field as having no definite capacity, because we see fewer things nearby and more things 'at a distance'. It follows that apparent size, convergence and distance 'naturally symbolise or signify each other, [and] are the abstract elements of a situation, and are within it mutually synonymous because...the subject of



perception....does not posit them separately and therefore has no need to unify them' (PP:261).

Depth is merely a 'moment' in arriving at a perceptual faith in one single thing, according to Merleau-Ponty, when he refers to the perception of a cube in Koffka's experiment of the drawing of a cube which shows that the organisation is multi-stable when intermediate oblique lines were drawn. However, one perceives the *Gestalt* in its most symmetrical or determinate form and already as a three-dimensional setting. With these drawings, Merleau-Ponty also presents the concept of presence and time in perception. Merleau-Ponty claims that it takes a while for the gaze which 'gives birth to depth' to adjust in trying to see the cube's face projecting outwards (as an axonometric view from outside) and later, seeing in the same drawing as a 'wire-frame' cube, revealing a view of the inside, and again when we see the outside of the cube from below (PP:262-263), and that these perspectival views, like the experience of one's left hand touching the right, appear sequentially.

To conclude this section: Merleau-Ponty argues that depth, width and height as parts of space are not juxtaposed, but co-exist, and that the body draws them all into the grasp it has of the world. This relation is temporal before being spatial - things co-exist in space *because* they are present at a specific moment for the perceiving subject (PP:275). The meaning of height and width are not given to us in the perception of things: our bodies constantly constitute them. We have a spatial level as reference for things that arrange them in terms of that spatial level, and in the same way depth has meaning for us in that things situate themselves in terms of distance and sizes that defines 'far', 'near' and so forth (cf. Kockelmans, 1970:294-295).

## 2.7 The 'chiasmus'

In this co-existence of things, space and the body-subject, Merleau-Ponty intensifies and tightens the notion of unity within and without (and co-existence of) myself as body-subject, others, and my world which I am. An implicit 'tension' between the internal and external life (between things, others, space and the body-subject) within the concept of unity (which implies the presence of more than one constituent) with my view is resolved in Merleau-Ponty's notion of the flesh, not as a union, but as that 'thickness' which everything and I am. The chiasmic texture of the bodily field is for Merleau-Ponty the flesh of the world. In 'The Intertwining - The Chiasm', an incomplete manuscript published in VI,





Merleau-Ponty replaces the terms 'phenomenal body' and 'objective body' with the body as 'sentient' and as 'sensible' as two sides of the same body (VI:136,142). Between the two sides lies the 'chiasm' that separates the 'for-itself' and 'in-itself':

...our body is a being of two leaves, from one side a thing among things and otherwise what sees them and touches them; we say, because it is evident, that it [the body] unites these two properties within itself, and its double belonging to the order of the "object" and to the order of "subject" reveals to us quite unexpected relations between the two orders....the body has this double reference; it teaches us that each calls for the other. (VI:137)

It does not necessary have to be seen in order to be visible, says Merleau-Ponty, for the things and my body belong to the same family. Because my body is visible and tangible, it uses 'its own being as a means to participate in theirs' (VI:137), since the being of my body and the being of the thing are each archetypes for the other, 'because the body belongs to the order of the things as the world is universal flesh' (VI:137). We see here a transition from Merleau-Ponty's notion 'I understand the world [in the same way] it understands me' (PP:408). This quote still indicates the dialectic relation between the physical body and the world.

Having said that the flesh is not matter, substance or mind, but rather an 'element' like water, earth, air that exists in-between the spatio-temporal individual and the idea, Merleau-Ponty believes flesh is rather an 'element of Being' (VI:139). Merleau-Ponty calls 'the chiasmic texture of the bodily field the flesh of the world' in his essay 'Eye and Mind', where he explains that 'the world is made of the same stuff as the body', as vision is in that place of 'un-division' between the sensing and sensed (PrP:163). Merleau-Ponty's reversibility thesis shows the chiasmic relationship between the human body and things, (for instance, artefacts and instruments) and between the human body and other human bodies in which their 'flesh' is of the same 'universal flesh': simultaneously different and yet also the same. The difference or separation (*écart*<sup>71</sup>), not opposition, is the condition for the reversibility and their interlacing and cohesion.

My conception of the 'flesh' coincides with Merleau-Ponty's notion of depth, but on an ontological level: the dimension of depth or the 'unseen' dimension of the visible is symbolised by apparent size, distance and convergence; so too are the bodies of others, or

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<sup>71</sup> Merleau-Ponty describes the notion of *écart* as differences and 'extreme divergencies' between which 'a cohesion cannot be denied them since they are.... of one something' (VI:84).

the objective body a symbol of the flesh.<sup>72</sup> Thus the visible contains the depth of the invisible, which is universal. Moving beyond ‘perceptual faith’ in *PP* to an ontology of Being, Merleau-Ponty’s last project eclipses *PP* without completely abandoning it in *VI*.

### 2.7.1 The ‘flesh’

For Merleau-Ponty, in *PP*, our ‘natural’ world manifests itself to a human body, which in its turn, ‘signifies the world’ (cf. Kockelmans, 1970:278). The place where the human body and the world meet manifests as sense perception. Sensation cannot be explained fully as causality, nor can the subject of sensation be described as a constituting thinker. Therefore, sense perception lies somewhere between the ‘for-itself’ and the ‘in-itself’,<sup>73</sup> which Merleau-Ponty calls a ‘communion’ (*PP*:212). In sense perception, the subject is ‘attuned to’ or situated in a setting to open up towards the world so that the world reveals itself. ‘If qualities radiate around them a certain mode of existence, this is because the sentient subject does not posit them as objects, but enters into a sympathetic relation with them....sensation is not an invasion of the sentient by the sensible... [but rather] in this transaction between the subject of sensation and the sensible....’ (*PP*:214-215).

At the level of sense perception, the subject (-body) is anonymous. Merleau-Ponty maintains that perception is the common act of ‘all our motor and affective functions....we have to rediscover below the sedimented layers of knowledge the structure of the perceived world [which is] like a universal style shared in by all perceiving beings.’ (*PrP*:5,6). Therefore, every perception takes place in an atmosphere of generality.

In *VI*, Merleau-Ponty expresses a ‘junction’, an intertwining, between the one who sees and the visible (the seen): ‘There is reciprocal insertion and intertwining of one in the other’ (*VI*:138). For Merleau-Ponty, object and subject, sensible body and sentient awareness are of the same order, that is, of the flesh (cf. *PrP*:163).

In *VI*, he calls the flesh the ‘formative medium’ of the object and the subject - the flesh is an element, ‘a general thing, midway between the spatiotemporal individual and the idea ...a concrete emblem of a general manner of being’ (*VI*:147). There Merleau-Ponty’s reversibility thesis places reality as a reciprocal envelopment between ‘the seer and the visible, touching and touched’ (*VI*:147), which allows for a new definition of reality in the

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<sup>72</sup> I owe the idea of the objective body as symbol of the flesh to Wolff.

<sup>73</sup> To use Sartre’s terminology.



physical sciences, especially in terms of scale, when looking at the real world through a microscope or a telescope. (This notion is incorporated into my phenomenological explication of lived built space in Chapter 4). Merleau-Ponty's project in *VI* was partly to re-write his phenomenology of perception, but also to move beyond phenomenology to an ontology of Being.

The reversibility of the 'flesh' namely the 'interfolding of my corporeality in the flesh of things' is, according to Hass (1999:91), Merleau-Ponty's ultimate notion that goes beyond overcoming the subject-object duality; '...rather, it frees us from that antithesis'. The question arises whether phenomenology and the existential development thereof up to this stage in Merleau-Ponty's notion of 'flesh' and the 'chiasm' would even exist were it not for the ontology of Cartesian philosophical dualism and its resultant manifestations in the natural and physical sciences which has held and still does hold Western thought and the natural attitude 'captive'.

In terms of Cartesian philosophical dualism, I would like to posit the idea that Merleau-Ponty's notion of the 'flesh' and reversibility or inversion implies *a priori* binaries such as subject-object, personal/individual-general, thesis-antithesis, nature-culture and so forth. To qualify this thesis, I remind the reader that Merleau-Ponty's *opus* started with the problem of the relation between consciousness and nature, a (philosophical) dualism that was widely accepted in the sciences at that time (and still is today) which he worked out in his phenomenology. We must remember that phenomenologists already proceeded from the stance that human beings and the world mutually imply each other, however, there were many differences amongst phenomenologists, and those between phenomenologists and scientists regarding the relation (itself) were vast.

In his projects *SB* and *PP*, Merleau-Ponty worked out a phenomenology of the lived body in experience and perception to show the dialectic relation between the human body and the world. I am of the opinion that a dialectical relation implies opposites that are not 'dissolved/resolved' in a synthesis, but rather exist as a kind of circularity. Yet, the body, for Merleau-Ponty in *VI*, is that which crosses the 'abyss' of dialectics.

I interpret Merleau-Ponty's notion of the 'flesh' as follows: my body, being 'flesh', has a dynamic (stretchable, plastic) texture. I would like to use the metaphor of dynamic equilibrium as a way to make Merleau-Ponty's concepts understandable for myself, for which we return to the lifeworld. A building's structural integrity depends on the even

spread of forces and load distribution throughout the structure. The aim is to reach a dynamic (not static) state of equilibrium of the forces in all directions.

An analogy from building can be applied to Merleau-Ponty's projects in *VI*. Differential movement in structural elements such as brickwork and concrete tends to manifest as cracks along the weakest lines in a structure. Therefore, we can pre-empt the most likely positions where cracks may occur, by forming movement joints in the structure before applying finishes such as plaster or tiles to its surfaces. These movement joints are filled with a mastic rubber sealant that expands and contracts with the structure; the sealant 'bridges' the gap and becomes part of both sides of the joint, while the steel reinforcing runs throughout so that the structure functions in a monolithic manner. This is an example of pre-empting the gap (*écart*) by allowing the 'flesh' to be the flexible element that 'joins' both sides and thus embodies them; in essence, the 'flesh' is the structural 'mastic'.

Merleau-Ponty's notion of the 'flesh' and the 'intertwining' becomes the question of the ontology of Being as a continuation of his philosophy, but on a completely different level, one that differs from many philosophers' claim that Merleau-Ponty's ideas in *VI* indicate a complete break from his previous work.

## 2.8 Conclusion

Merleau-Ponty is the philosopher of the body. In view of his early death in 1961, which left his work incomplete, many philosophers have proposed ideas for the completion of his last text. However, these remain speculative. In terms of my project, I have come to realise that I have only started to delve into the depths of Merleau-Ponty's ideas, and they deserve further study. Let me recapitulate what we have learned so far.

Merleau-Ponty characterises the body-subject as 'being-in-the-world' and introduces our lived body as the primary mode of being (Welton, 1997:741). The prominence that Merleau-Ponty gives to the lived body shows us that perceptual experience is something that is rooted much deeper than mere mental acts. '[Merleau-Ponty] stabilize[s] the difference between non-epistemic and culturally and linguistically mediated perception, and finally [he] develop[s] a notion of perceptual horizon in which the senses are located in the internal connection between perception and the acts of the body' (Welton, 1997:741).

As we have worked with Merleau-Ponty on the dialectical relation of body-subject-world, in the process of discovering his phenomenology of perception, Merleau-Ponty has shown us how our being-in-the-world is the original given from which the body and soul are abstracted. Being is already meaningful, prior to philosophical reflection. Our life projects, which link us to our lifeworlds by means of an ‘intentional arc’, are made possible by our temporal existence, as we are purposively directed towards our projects in the world.

We have many worlds, according to Merleau-Ponty. Our lifeworlds may be those of our careers, our families, of music and also imaginary worlds, such as the fairy-tale world of a child. Our capacities to symbolize and to create virtual settings, our imaginary freedom to propose variations to the existing *Wesenschau*,<sup>74</sup> differentiate human beings from any other living species in the world. Our spontaneity differentiates our individual styles of being-in-the-world. The body as a symbolizing being-in-the-world distinguishes itself as a subject from objects and other subjects as it becomes conscious of itself.

*Gestalt* psychology contemporaneous to Merleau-Ponty’s philosophy contributed to his notion of perception, his notion that our bodies perceive in wholes, figures against backgrounds, and that the lived body is the third term in the point-horizon figure-‘double background’ structure. This structure forms part of the perceptual field into which we bring our past, ideas and knowledge and views to form a perspective as part of the horizon of all horizons that is the world. Because I am corporeal, I can only perceive partly and from a specific point of view at any given moment. My facticity means that my perception is ambiguous, perspectival and inexhaustive, in view of which my body’s intentional notion of ‘I can’ (which is part of an inborn complex) as the intentional process to gear itself towards gaining an optimum hold on my world.

When this is not possible by its natural means, the body makes itself instruments and projects a cultural world around it, whether it takes the form of theoretical constructions, science or artefacts, and that includes the acquisition of habits. Habit is the power of ‘dilating’ (*PP*:143) our being in the world, for my body as a system of motor and perceptual powers is a grouping of ‘lived-through meanings that moves towards its equilibrium’ (*PP*:153). Habit acquisition is irreducible; it changes and renews our body image and forms new clusters of meaning. In the same way, former movements are integrated into a fresh

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<sup>74</sup> A term by Husserl that means ‘the act of ideation’ or ‘intuiting of general essences’ which is to be based on ‘the careful consideration of representative examples, which are to serve as stepping stones....for any generalizing “ideation” (Bakker, 1965:116). It is also necessary to vary such examples freely but methodically in order to grasp essential relationships (“*Wesenszusammenhänge*”)’ (Bakker, 1965:118).



motor entity in which our natural powers come together in richer meaning (*PP*:153), like the woman with the feathered hat or when instruments are incorporated into our bodily *schema* like the blind man's cane. Habit acquisition is an 'additive' process to one's existing *repertoire* of motor and perceptual skills, which also illuminates the dynamic structure of one's body *schema*.

Habits show us that the body *schema* is open towards the world to incorporate practised techniques and when artefacts and instruments are part of the skills required to fulfil a certain goal. In this sense, techniques manifest our unique styles, for example, the painter's style, how a poet perceives, how a woman walks on high heels, because, as Malraux said, perception already stylizes (*PW*:59).

The fusion of body and soul is in being-in-the-world, which manifests in our behaviour and in our ability to live in the concrete and projected world of abstract movement. There are also different ways in which I perceive my own body, that is, my body as pre-reflectively lived in the here and now, and also my body as reflected upon, the body of 'I think that...', between which I consciously oscillate.

By looking at behavioural pathologies and exceptional situations Merleau-Ponty shows that through the reduction, we discover that the structures of our behaviour and those of perception are irreducibly linked to our being-in-the-world. Beneath our body at this moment is our habitual body, which is a stabilizing factor in the unity of our body and world, to enhance our grasp of the world. My body, says Merleau-Ponty, is the mediator for having different worlds. We have our biological world; my body has the power to symbolise, to be conscious of and communicate and act in the literal and figurative sense (Wolff, 2005) and my body has the ability to project a cultural world by creating technical artefacts and theoretical constructs with its spoken and written language.

Our bodily inherence in the three-dimensional world is entrenched in our operative language. We speak and write about 'heads' of staff, a theory resting on two 'legs', feeling 'up' or 'down', performing a balancing act in a corporation, the 'depth' of emotion, the 'heart' of a matter, someone being the 'eyes' and the 'ears' of a newsroom, 'left' and 'right' wings in politics, standing on 'high' ground, and so forth.<sup>75</sup>

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<sup>75</sup> Philosophers such as Mark Johnson (1999) and Sue Cataldi (1993) have done extensive studies of the philosophy of embodiment, specifically our corporeality as ontological frame of reference in language.

Of great importance for this study is the notion that the condition of spatiality is that a (body) subject inhabits a setting and is inherent in a world. We inhabit space that always already exists. Only from this perspective is it clear that the body is the zero point of orientation. Insofar as we are of space we can only conceive of objective space by means of our own body's spatiality (*PP*:280), which means that my primordial spatial perception is the basis for my understanding of geometrical and Euclidean space. The meanings of bodily space and universal space are reciprocally derived from each other:

The truth is that homogeneous [or universal] space can convey the meaning of orientated space only because it is from the latter that it has received that meaning....[b]odily space can really become a fragment of objective space only if within its individuality as bodily space it contains the dialectical ferment to transform it into universal space...[thus] the point-horizon [figure-ground] structure is the foundation of space. (*PP*:102)

This aspect of Merleau-Ponty's philosophy illuminates the 'tension' that we experience in the world of architecture, in that the emphasis in architecture lies on the abstractions of geometry and theories that derive from our primordial lifeworld experiences. In training architects, I believe phenomenology is the starting point to reveal the structures that underlie body-subject-lifeworld experiences. Ultimately, the reality of my perception exists insofar as any spectacle, exactly as I see it, is a moment of my personal history.

The natural tendency to fulfil an intentional act holds the key for the body-subject to create a cultural world around it by making instruments and artefacts. Some artefacts and instruments become absorbed in the realm of the body by means of habit or skill; the body becomes used to the instrument or artefact, and in that, sense skill is the body's ability to mediate a world that enables the body to become an expression of that world. Therefore, our bodily being-in-the-world is our fundamental meaning-giving existence.

As an architect and philosopher, I can only describe my lived experience through reflecting on my own primordial experiences of the spatial qualities in and around buildings. Being in a specific interpersonal, social, political and cultural world, I must continue with this infinite task of revision and variation, to uncover those things laid bare for our (re-)discovery. This is an unending exploration of what lies underneath the temporal layers of reality. We can celebrate our own temporal corporeality, our humanness in the world as our abode;<sup>76</sup> moreover, we can stop neglecting, dismissing or damaging others, who are of the same flesh, and we can consider the notion of care: for ourselves, for others and the

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<sup>76</sup> A Husserlian term to denote indwelling (Watson, 2009:16; Wolff, 2009a:10).



world. Merleau-Ponty says that the reversibility of the flesh emerges out of difference (VI:147). Ultimately, existence is like a three-dimensional fabric woven by textured threads.



## Chapter 3: Don Ihde: ‘Technology...transforms experience’

### 3.1 Introduction

In the previous chapter, we learnt from Merleau-Ponty’s definition that culture is the sedimentation of human beings into things. We project a cultural world around us by making instruments and artefacts to fulfil an intention aimed at that which is beyond the body’s natural means, to reach an equilibrium between the body-subject and the world. We acquire new skills and habits in applying these instruments or artefacts, resulting in the renewal or alteration of our bodily *schemas*, especially when the artefacts or instruments become extensions of our bodies. Merleau-Ponty regards technology as a cultural and individual endeavour. He focuses on the body’s ways of accommodating artefacts and acquiring new techniques and skills in using the artefacts through which our perception of the world and of ourselves is changed.

In order to move closer to an explication of how our bodies inhabit and experience built space, we have to understand what technology is and how our relation to technology influences and changes our experiences and perceptions of our lifeworld. A leading contemporary philosopher in this field is Don Ihde (1934 - ), a North American philosopher of technology who, inspired by Husserl, Heidegger, Merleau-Ponty and Dewey, has developed his phenomenological explorations of the relations between technological artefacts and human beings.

Breaking away from the classical philosophy of technology, which was largely concerned with the historical and transcendental conditions that enable technology, a completely new technological approach to reality has emerged, one which demolishes the hierarchies of the guiding symbolic cultural realities in which pre-modern technological activities were embedded (Achterhuis, 2001:3-4). This view is based on the development of the philosophy of technology on the North American continent - hence, Ihde’s philosophy is not completely new in terms of the worldwide development and earlier European exponents of a philosophy of technology.

The contemporary approach to technology took an ‘empirical turn’ that was characterised as being constructivist: ‘Instead of treating technological artefacts as givens, [the new generation of thinkers, a large number of which are contemporary North-American philosophers of technology] analysed their concrete development and formation....in which



many different actors become implicated' (Achterhuis, 2001:6). Analogous to Kuhn's philosophy of science, technology is no longer regarded as autonomous, in that the social forces which act upon technology are brought to light.<sup>77</sup> Technology is also no longer viewed as 'monolithic'; it is broken up into many different aspects that are analysed independently. Just as philosophers of science speak of the 'co-evolution of science and society', the (empirically oriented) philosophers of technology began to speak of the 'co-evolution of technology and society' (Achterhuis, 2001:6), as we shall see in Ihde's philosophy in particular.

Although my natural attitude is based on my unique South African context, I have three reasons for adopting Ihde's perspective. Firstly, Ihde's unique focus on the embodiment relations between human beings and technology on different scales reveals how our perception of the lifeworld and our lifeworld itself are transformed by these human-technology relations. Secondly, as we shall see in this chapter, Ihde's analyses of these relational structures are inter-cultural and can thus be decontextualised and applied in another context (recontextualised).<sup>78</sup> Thirdly, Ihde bases his phenomenology on the work of earlier European Continental phenomenologists such as Husserl, Heidegger and Merleau-Ponty. Ihde is currently a Professor at the Department of Philosophy at Stony Brook University in New York, and his work has greatly influenced the recent development of the philosophy of technology in North America during the last quarter of the twentieth century.

Therefore, a summary of these recent developments in the philosophy of technology in North America will give us the context in which Ihde has been working. In his 1993 work, *Philosophy of Technology: An Introduction (PT)*, he writes that philosophy of technology, as a separate phenomenon from the philosophy of science, has been a recent addition to the sub-specializations of philosophy in Western Europe and North America (*PT*:3). Philosophy of science in its early stages in North America was dominated by Logical Positivism, which became largely Anglo-American and 'Analytic' in style (*PT*:3).

Furthermore, the philosophy of science was largely unconcerned with technology itself, while philosophical movements, such as phenomenology (with Heidegger as its main exponent), pragmatism (the philosophy of Dewey) and political traditions such as neo-

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<sup>77</sup> Almost a century before Kuhn, and in a different manner, Marx had already analysed the social construction of the technological system (Wolff, 2008:notes).

<sup>78</sup> For an explication of the 'decontextualization' and 'recontextualization of technology, refer to Wolff (2008:1-21).



Marxism (Critical Theory) dominated the philosophy of technology. These movements are versions of ‘praxis philosophies’, which contain a latent emphasis on the primacy of praxis (PT:46; TP:<sup>79</sup>xix).

In its early stages, phenomenology and analytic philosophy were ‘preoccupied with the philosophy of science’ (TP:xviii), while the North American versions of the European Continental philosophies paid more attention to technology (Ihde, 2000:66). Notwithstanding, the whole tradition of early phenomenology and analysis regarded technology as an ‘applied science’<sup>80</sup> (Ihde, 2000:66; TP:xix). Ihde writes that even though ‘technology is historically older than science....there is still ambiguity as to determining the roots of philosophy’s relationship with science and technology’ (TP:xix). Moreover, philosophy conceives of itself as a type of a ‘conceptual engineering’, rather than as ‘material engineering’ and the preconception that technology is ‘the slave of science’ points to the long-held tradition of the theory-practice distinction which is a contemporary version of the platonistic tradition, (theory / mind) takes precedence over body (TP: xix).

The idealist tradition gives primacy of the mind over the body. The idealists regard theory as primary, and practice as secondary ‘products’ of the mind and body. Ihde believes that the ‘praxis philosophies’ returned to the ‘platonistic’ tradition in a new sense, in that in praxis philosophies, the ‘primacy of a theory of action is one which positively evaluates...the phenomena of perception and embodiment’<sup>81</sup> (TP:xix). Ihde draws a direct analogy to the classical mind-body argument in distinguishing the relations of science and technology as a parallel to the theory-praxis distinction (TP:xxi). The assumed primacy of

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<sup>79</sup> Ihde, 1979. *Technics and Praxis: A Philosophy of Technology*, cited as TP.

<sup>80</sup> However, Merleau-Ponty says that science is ‘a means of technological advancement, insofar as it offers an object lesson in precision and truth’ (WP:42). From what Merleau-Ponty (as a second-generation exponent of phenomenology) argues, it would seem that science and technology mutually imply each other, at least whenever science is philosophically thematised. Thus, from a certain stage in history, science has been seen as necessary for the advancement of technology, while simultaneously being dependent on its technological instruments.

<sup>81</sup> The question arises what Ihde regards as embodiment, as the term is used in various contexts in which it can have different meanings. In his latest book, *Bodies in Technology* (BT), Ihde describes the invariant role of embodiment in situated knowledges: ‘[T]he knower is always embodied, located, is a body[-subject]...in a second sense, one is also situated by cultural particularities which “mark” one’s embodiment’ (BT:68; Ihde’s emphases). Ihde refers to Merleau-Ponty in reflecting on bodily perception (Ihde’s ‘body one’) from which derives a ‘learn[t] embodiment as actively being in the world’ (BT:69) since all situated knowledges require this form of embodiment. Ihde’s ‘body two’ is the cultural and socially constructed body, ‘the embodied and enculturated particular being that we are’ (BT:70). ‘Embodiment’ in the social sense can also be seen as a collective term indicating the social, cultural and political context. In terms of Ihde’s intentional structure, ‘embodiment’ is seen as a mix between body one and body two. (Both are the relational body-subject). In Ihde’s theoretical explication of the philosophy of technology, he appropriates ‘embodiment’ as a metaphor in referring to the concept of the materiality of technology, saying that modern science is *technologically embodied* (PT:77; my emphasis).

science over technology and the presumed neutrality of technology lead to ethical dilemmas that, according to Ihde, require an alternative approach to their relation.

Ihde therefore proposes a ‘materialist’ alternative to the science-technology relation insofar as technology takes precedence over science; he does not regard science as the ‘mind’ or a set of eternal forms, but as ‘the arrangement of human social, political and individual action engaged with the material world’<sup>82</sup>....The technology-science relation is from the start a form of action which takes on and denies certain values, and [it] is therefore a choice of a possible way of being in the world’ (TP:xxi).

The philosophy of technology in North America follows two streams. The more traditional stream gives prominence to what Ihde calls ‘*figure/texts*’,<sup>83</sup> (focused mainly on the ideas of Heidegger and Marcuse) in which industrial/modern technologies are differentiated from ‘arts and crafts’ (Ihde, 2000:66). Ihde claims that arts and crafts are regarded as ‘one-dimensional’ or inferior to modern technologies and are thus reduced to be contained within Technology (capital ‘T’, meaning ‘transcendentalised’).

The other stream attempts to incorporate technologies in its analyses of ‘technoscience’,<sup>84</sup> which is the ‘hybrid phenomenon of late modern science and technology’ (Ihde, 2000:66). Ihde, Latour, Pickering, Haraway and Feenberg are the most prominent philosophers in this stream, in which the main focus is on the systematic interaction between humans and technology (or non-humans/‘cyborgs’/machines<sup>85</sup> - the material aspect of the interaction

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<sup>82</sup> Ihde may be alluding to Hannah Arendt’s thought on social and political forms of action and engagement in her text *The Human Condition* (1998)

<sup>83</sup> Ihde refers to philosophers who practise in the ‘Continental mode’, that is, a traditional ‘literary’ paradigm in the form of textual and historical criticism (Ihde, 1986b:12). Here, Continental philosophy refers to philosophy that originated on the European continent. Ihde calls his own approach to philosophy ‘Continentially oriented’ (Ihde, 1986b:10).

<sup>84</sup> Ihde writes that the term ‘technoscience’ may have been coined by Gaston Bachelard in the 1930s, but became popular through Bruno Latour’s philosophy in the late 1980s. Latour sees ‘technoscience’ as a ‘marriage’ between science and technology (PT:26f). ‘....Bachelard emphasized that modern sciences are to be understood as “phénoméno-techniques,” that is, as enterprises which technically address and shape their objects of investigation in the laboratory. As a rule, these objects are not easily accessible with the means of everyday experience’ (Tripathi, 2004:2).

<sup>85</sup> In TP, Ihde does not give explicit definitions of or differentiations between thing, object, tool, artefact, device, machine and instrument in a large number of instances where he uses these words, and sometimes the contexts in which these terms are used do not provide adequate or implicit ‘clues’ (and whether he is writing about something specific or general), from which their meaning could be derived. The assumption that Ihde uses these terms interchangeably and / or ‘collectively’ as the ‘material component’ of technology or, like Habermas, technology viewed as a system (PT:37), must be revisited in the light of a large range of specific analyses and phenomenological explications added to his later texts, especially in TL. Ihde’s diagrams in this regard are indispensable. Interestingly, according to Miller (2005:53), ‘artefacts include not only designed physical objects that causally mediate human agents and elements of the physical world that are not artefacts, many artefacts also mediate between human agents and other artefacts’. Thus

as defined by the philosophers in this stream)( Ihde, 2000:66). In applying the phenomenological method to his analysis of the interrelation between humans and the world mediated by technology, Ihde's methodological approach in his analysis of human-technology relations (as with his analyses of technologies within these relations) moves towards a variation of the classical phenomenological method.<sup>86</sup>

### 3.1.1 Postphenomenology

The main characteristics of this method are explained by Ihde. The first is an adaptation of Merleau-Ponty's notion of the body-subject and Husserl's 'ego' with 'human embodiment' to steer away from Cartesian philosophical dualist connotations. The second is an 'expansion' of hermeneutics to include the interpretation by machines of (naturally) invisible phenomena into perceivable phenomena for human interpretation. The third is applied 'practice', especially in scientific research and development. The fourth is the combination of Ihde's interpretation of Merleau-Ponty's body-subject (which Ihde calls 'body one') with the Foucauldian notion of an objectified body on which political power is exerted (Ihde's 'body two', viewed from a third person point of view); 'body two' is also a cultural view of bodies as gendered. Ihde's approach is therefore a hybrid of classical and post-modern philosophical stances (*PT*:1-25).<sup>87</sup>

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artefacts that do not have a specific technical function become an object or ornament (Miller 2005:53). According to Miller (2005), artefacts, tools and instruments can be symbolic and non-material. Although Ihde is focusing on the material properties of technology, I would argue that the fact that we all have normative stances towards technology in our lifeworlds, and the fact that technology is non-neutral, is reason enough to mention and adopt Miller's argument that institutional artefacts are the concrete embodiment of social intentionalities. Moreover, some artefacts, objects, tools, etc. have deontic power, but this power is instituted by society on the objects or artefacts, which gives it its meaning (Miller, 2005:61-64). Carl Mitcham (1994) distinguishes different types of technologies or 'modes of technological manifestation'. These are 'technology as objects' (e.g. artefacts), - 'activities' (e.g. making and using), 'technological volition' (by human beings) and 'technological knowledge' (produced by human beings), supplemented with a comprehensive outline of the differences of the material technological objects (which Ihde focuses on, albeit inadequately explicated in his own work), which should be read with Ihde's texts (see Mitcham, 1994, Chapters 7 to10).

<sup>86</sup> If we look at the many ways in which Ihde's analyses differ from Merleau-Ponty's notion of phenomenology, it seems at first glance that Ihde alludes only to aspects of Merleau-Ponty's philosophy. However, a closer study of Ihde's philosophy, for example, the very important term 'mediation' in the context in which Ihde uses it in his earlier work on human-technology relations, reveals that it presupposes a philosophical dualism of 'subject' and 'object' with technology in between. However, according to Verbeek (2005b:129) Ihde's postphenomenology alludes to Husserl's 'correlation a priori' which began as intentionality, thus it must be borne in mind that Ihde's 'mediation consists in a mutual constitution of subject and object....considering Ihde's discussion of the various relations between humans and artefacts. Mediation shapes the mutual relation in the concrete constitution of subject and object....Humans and the world they experience are the *products* of technological mediation' (2005b:130). According to Verbeek (2005b:132-133), the latter aspect is underexposed in Ihde's philosophy.

<sup>87</sup> Ihde's concept of 'body one' and 'body two' is quite a late variation to his preceding work; these notions are built onto his concept of micro- and macropereception. The difference is the addition of arguments that show the interplay between technology and politics, ecology, ethics and gender to his concept of

Writing about computer and imaging technologies, Ihde says that technology plays a primary role in contemporary scientific inquiry because ‘science is embodied in its instrumentation’ (Ihde, 1991:74). Even the place of scientific experiments, the laboratory, is a technological sphere that is abstracted from the real world. For Ihde, science is a way of ‘seeing’ (cf. Verbeek 2005b:140-141) and scientific observation with or by means of instruments gives a material-hermeneutic aspect to science. This notion can be traced to Heidegger and Kuhn.<sup>88</sup> In order to explain this ‘expansion’ of hermeneutics towards the interpretation as performed by instruments or machines, to first ‘prepare/translate’ reality for human understanding and interpretation, Ihde describes the material interpretation of reality as ‘instrumental realism’ in the scientific world.

By moving into this direction, Ihde takes a strategic step in his method of enquiry. His method is built on both pragmatism and the more concrete existential hermeneutic traditions. Appropriating postphenomenology, Ihde analyses cultural embodied perception (multi-stable macroperception) and presents individual (micro)perception in an autobiographical style, referring to specific instances in his everyday life from which he analyses technologically mediated intentional relations. He then presents these relations in an uncomplicated manner. Ihde’s method is a hybrid of phenomenology and pragmatism that closely resembles Dewey’s pragmatic method.<sup>89</sup>

### 3.2 Ihde’s definition of technology

At an early stage of his thinking, Ihde gave a general definition of technology in terms of the contemporary debate in North America. Firstly, technology has a concrete component or a material element. Secondly, humans make use of these components: ‘technology must enter into some set of praxes’ (PT:47) and within these set of praxes, there are specific

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‘macroperception’, which he now calls ‘body two’. Ihde’s concept of ‘micro- and macroperception’ assumes embodied human beings in the world as part of and co-creating the inter-subjective cultural world which is equally part of the lifeworld. The lifeworld as explicated by Husserl and especially Merleau-Ponty, naturally implies politics, ecology, etc. Therefore, Ihde’s decision to use ‘body one’ and ‘body two’ in combination with ‘micro- and macroperception’ is in my view a duplication. The terminology ‘body one’ and ‘body two’ might be misleading: we must remember that perception is not a passive event; body one and body two are both active in perception.

<sup>88</sup> Ihde writes that Heidegger’s approach to science and technology was underpinned by the notion of a praxis relation to nature as the source of all resources to be modified by humans (nature is a ‘standing reserve’), so that this praxis of everyday life is transformed into a specific way of seeing. Thus science as a particular way of seeing depends on technology’s material, existential and cultural way of seeing (Cf. IR:51-57). Drawing an analogy to Kuhnian paradigm shifts in science, Ihde applies the same notions to technology. Ihde shows that Kuhn’s perceptual model of interpretation is also characterised as a way of seeing which Ihde applied to Ihde’s own notion of macroperception (IR:13-14).

<sup>89</sup> Cf. Hickman (2008:99-103). Mitcham (1994:75) describes Dewey’s idea of tools being extensions of the human body.



differentiated types of relations between technological artefacts and humans who use and make them. However, Ihde excludes many techniques as *directly* related to technology, for example, dancing or athletics (PT:48). In my opinion, all techniques are directly related to technology<sup>90</sup> for the following reasons: firstly, the body-subject acquires habits and techniques that are necessarily at some point directly related to technology within the body-subject -world<sup>91</sup> relation.

Ihde provides a second definition of technology: technology is based on the necessity of embodiment in Ihde's (two-way) relational structures, which are discussed below.

In a third definition, Ihde explains that in human-technology relations, techniques are required either to interpret data produced by instruments or machines, or simply to 'operate' or perform certain actions to enable technologically mediated intentions.

Having defined 'technology', Ihde went on to explicate the dialectics of technology and science, body and mind, theory and practice. Ihde proposes applied reason and a practical approach to appropriating the phenomenological method. He aims to show how science is related to technology and praxis, and believes that much of modern science is to be re-interpreted 'in the light of its....instruments' (PT:111). Ihde's phenomenology of technics is explicated mainly in his seminal work, *TP*. He takes Heidegger's thought as his first point of departure (especially Heidegger's views on the primacy of technology and the initiating nature of *praxis*<sup>92</sup> in terms of science and philosophy, and on science as the 'tool' or 'instrument' of technology (TP:xi,xxi)). Ihde's second point of departure is to examine *technē*<sup>93</sup> or technics and its mediating role in the human-world relation (TP:xii). In his text

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<sup>90</sup> Especially when viewed from Mauss's perspective on bodily techniques and Bourdieu's notion of 'habitus' (cf. Wolff, 2009b:1-15). Richard Sennett's (2008:149-178) chapter on the hand is also an exemplary explanation of body technics.

<sup>91</sup> Although he explicitly refers to *PP* regarding embodiment and perception, Ihde makes a similar error to that made in traditional psychology. By remaining in the objective stance by compartmentalising the perceiving human body and perception, Ihde neglects the lived bodily existence as already meaning-giving and open for further experience and perception through the body's 'I can' instead of the third person approach.

<sup>92</sup> Ihde defines *praxis philosophies* as those philosophies that 'in some way make a theory of action primary. Theory of action precedes or grounds a theory of knowledge' (TP:xv).

<sup>93</sup> The etymology of the word *technē* refers to its classical context. *Technē* is a Greek word which means Art, skill or a regulated method of making a thing. It also means craft, cunning and sleight (of hand); the means whereby things are gained, know-how; trade; a work of art which is linked to *poiēsis* (*techo* means to work); artefact (ET:32). Technics goes deeper than its etymology. It refers to an aspect of action. It has seven characteristics. First, it possesses a form of capable action which is directed at an aim. Second, it is the instrumental and methodical attempt to master or intervene in nature. Third, it represents a tacit form of knowledge (that may or may not be explicitly formulated) that involves a certain degree of standardization or method in the attempt to apply a mode of action. Fourth, it works on matter, objects, sources of energy, people, individuals, information or knowledge, for example, mathematics. Fifth, an intervention is made by

*Existential Technics (ET)*, Ihde defines technics as ‘the human use of artefacts to transform a lifeworld, employed through skills or techniques’ (ET:80).

According to Ihde, the question of technics and the human being is ‘one about the variable possibilities of our seeing [itself and ourselves]...through the focus upon techniques’ (ET:90) (cf. Wolff, 2009a:1-21). On the whole, Ihde is widely recognised and acknowledged for his valuable contributions to the philosophy of technology. I focus on Ihde’s incorporation of and expansion on key aspects of Merleau-Ponty’s phenomenology of perception, but start by looking at Ihde’s early explications of the intentional relation between human beings and the world-by means of technology and how technology in turn mediates our perception and experience of the world.

### 3.2.1 Human-technology relations

Ihde’s approach to understanding the ways in which human beings engage with and appropriate technological artefacts in everyday life involves applying the phenomenological methods of Husserl, Heidegger and Merleau-Ponty, especially in order to examine the intentional relations between the perceiving human being and the world. However, that is where Ihde’s appropriation of the classical phenomenological method ends, as mentioned before. The unmediated perceptual human-world relation is much more complex when technology plays the role of mediator between human beings and the world. From the perspective of human-technology relations, Ihde gives a relativistic account, ‘which overcomes the framework that debates about the presumed neutrality of technology, and it avoids extremities, such as one which “reifies” technology into

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something that supports it (a physical or intellectual tool). Sixth, its results take form in technical objects such as equipment, machines, methods, certain habits, institutions, organisations and other things. Seventh, the supporting tools or technical objects for mediation tend to form a socio-technical system - the social aspect of technics is important. Technics applies to all domains of life (Wolff, 2006). Wolff (2009a:5) gives a comprehensive summary of technics:

Technics, then, is a complex consisting of three interdependent aspects: *habitus* (technical disposition of the technical agent), instruments or *means* (the system of technical objects and accompanying human procedures) and *worldliness* (the understanding interaction of the technical agent with the technical system). Human technicity as a whole, the nature of each of these three elements as well as the nature of their interaction, are always *changing*: it changes (1) whenever an individual child acquires skills that it didn’t have as a new born baby and throughout his/her life in the acquisition of new skills or in the gradual loss of it; it changes (2) “naturally” over the whole of a cultural group during the process of civilisation (albeit sometimes at a slow trans-generational pace); but technicity also changes (3) in smaller or larger interventions in the “normal” flow of events, this is what nowadays happens most often under names like “development” or “transfer of technology”.

Although Ihde emphasises the material aspects of technics in his earlier works, the material basis has socio-cultural historical aspects which are implicitly included. According to Agazzi (1998:3), the characteristics of technics are parallel to those of ‘episteme’ in ancient Greece: episteme focuses attention on the truth of





Technology' (TL:26), and a structural account in his effort to understand the role of technology in our lifeworld. Ihde analyses human-technology relations on the level of experience (in terms of perception) and of culture (Verbeek, 2001:123; TL:27). On the level of experience, Ihde wants to understand the different roles that technology plays in our relation to reality. On the level of culture, he inquires about the relation between culture and technological artefacts (Verbeek, 2001:123).

Ihde writes that the limits of a phenomenological account of human-technology relations in the lifeworld are 'those imposed by the limits of a relativistic context of [the] I-world relations' in which human action and agency is implied (TL:26). Furthermore, a phenomenological account is also structural by nature, because a phenomenologist, in his or her examination of certain relations, seeks to understand the structures (which can be simple or complex and multi-dimensional) of those relations, and which aspects of those structures are fixed and which are changeable. The different elements of phenomenology, that is, 'the dynamics of perceptual-bodily activity in actional (sic) *praxis*' are to be 'combined with the elucidation of relational structures', which is the 'function of the notion of the *lifeworld*' (TL:27).

Referring to Husserl's concept of the lifeworld, Ihde points to a dual focus in Husserl's concept. On the one hand, the focus is the notion that the lifeworld is the basic level of primordial experience, with the complexities of what Ihde calls 'primary perception' (TP:4). On the other hand, the lifeworld is 'the totality of all implicit beliefs and assumptions that we take for granted, from which we interpret our world' (TP:4).<sup>94</sup> In Husserl's text *The Origin of Geometry*, Husserl's concept of lifeworld combines a historical and a structural account of 'geometrizing thought in practical activity' which Ihde also adopts in his works (TL:28). For Husserl, geometrical *praxis* is a cultural acquisition that has become a sedimented and intuitive cultural practice. When Husserl's notion of intuition (as constituted, in other words, the geometrical context) is combined with the practical and material, this is a combination of two different *praxes* that Husserl made into one *praxis*, one derived from the other (TL:29).

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what is known; with *techné*, the focus is on efficiency. 'Episteme' concerns pure knowledge and usually contains a theoretical component while *techné* concerns knowledge of doing or making. (Agazzi 1998:1-9)

<sup>94</sup> In terms of Merleau-Ponty's philosophy, if the structures of pre-reflective primary perception (lived experience in the world as perceived in the natural attitude) are to be explicated, the phenomenological reduction is applied as we reflect on ourselves reflecting on our pre-reflective lived experience. Ihde differentiates between primary perception and the lifeworld (natural attitude), which are irreducibly interrelated.

Ihde modifies Husserl's examples by distinguishing between two levels of human perception: firstly, the bodily level of sensory perception, which he calls 'microperception' and, secondly, a level of interpretation that shows meaning and is cultural in nature, which he calls 'macroperception'.<sup>95</sup> Both belong to the lifeworld (*TL*:29). Ihde's concept of macro- and microperception can be regarded as undifferentiated, but already implied, in Merleau-Ponty's notion of perceptual openness to the world and to the cultural world that is projected by habit acquisition in the use of instruments which subsequently changes our existence (cf. *VI*:212-213; *PP*:145-146; *WP*:13-15). The world of perception consists of all the natural objects and the 'world of culture' (*WP*:101). Merleau-Ponty says in *PP* (xvi-xviii) that the world which is given in perception is 'the concrete, *inter-subjectively constituted lifeworld* of immediate experience. Moreover, it is a world of familiar cultural and natural objects, of other people, the world in which I act' (*PP*:xvi, my emphasis).

For Merleau-Ponty, certain phenomena of perception are 'given' by culture, such as the perspectival deformations of objects in the Renaissance perspective, because apparent size at a distance is not perceived as such. It follows that perception is 'polymorphic' and its becoming Euclidean is perception's orientation by the system. Thus, Ihde adopts Merleau-Ponty's notion that culture is perceived (*TP*:87; *TL*:40).

An inherent problem in Husserl's analysis, according to Ihde, is the 'bifurcation between the prescientific [lived world] and a scientific "world"' (*TL*:37). For Ihde, this bifurcation makes the process of cultural acquisition difficult for Husserl to explain, as 'Husserl's Galileo thus stands caught between a prescientific but perceived lifeworld and a scientific but unperceived world of ideality' (*TL*:37).

However, in 1991, in *Instrumental Realism: the interface of philosophy of science and the philosophy of technology (IR)*, Ihde argues that geometry is an acquired lifeworld technique (*IR*:17-21). From this point of view (or paradigm in the Kuhnian sense), Husserl's analysis is not problematic, as I believe that Husserl accepts the notion that cultural acquisitions are sedimented in our lifeworld. Merleau-Ponty writes that 'there is a dilation of perception'

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<sup>95</sup> Ihde's notion of micro- and macroperception is already mentioned in *TP*. It is worked out in more detail in his later texts. There are interesting analogies between Ihde's notion of micro- and macroperception and an inductive method for anthropological enquiry, in other words, micro- and macrotheory to examine the relations between primary worldviews through the ages and ethnological specificities (cf. Egenter, 1992:25-36). According to Egenter, the structures of the relations between primary worldviews and ethnological specificities are heterogeneous and 'oscillate' between positivistic empiricism and metaphysically deductive extremes. Due to discrepancies between the practical results of micro- and macrotheories, they fail to produce insights apart from historically recorded ideas on anthropology (Egenter, 1992:61-71). Possible parallels may be drawn through further research.



(cf. *PP*:143), a ‘carrying over ...of “natural” perception to instrumental relations...which obliges us to put in continuity the perceptual openness ....to a cultural world (acquisition of the world of instruments). [T]his original layer above *nature* shows that learning is *In der Welt Sein* and not at all that *In der Welt Sein* is *learning* ...in the cognitive sense...’ (*VI*:212).

On the basis of ‘micro-’ and ‘macroperception’, Ihde develops three theses in his analysis of technics in terms of the human-machine relations that I shall summarise below. For now, it is important to note that our relations with technology are greatly influenced by our cultural heritage, in that technologies are transferred across generations in a specific cultural context, which also greatly transforms or influences the way in which we perceive our lifeworld. At a microperceptual level, when I use a particular technological artefact, the artefact and I are in a particular relation within which both my experience and my perception of the world are changed. Thus, for Ihde, at both the macro- and microperceptual level, the technologies we use make our specific lifeworlds possible.

I might add that the notion of micro- and macroperception is already differentiated in Merleau-Ponty’s explication of individual sensory (bodily) perception, inter-subjectivity, the cultural world, as well as his explication of our different lifeworlds. From this, one can deduce an interim level of perception, namely ‘meso-perception’ and add it to Ihde’s notion of micro- and macroperception, which indicates the lifeworlds of smaller communities, such as the philosophical community, the architectural community or the religious community. Each instance is a sub-culture within a larger cultural whole. Ihde distinguishes between micro- and macroperception to show us that our relations to and experience with/of technological artefacts or instruments may indeed be transformed on various scales, which results in paradigmatic shifts in our lifeworlds.<sup>96</sup>

Ihde has three underlying theses in his analysis of technics. Firstly, our experience of technological artefacts is diverse and, in order to explicate our experiences and different types of relations between humans and machines, Ihde applies the notions of intentionality of Husserl and Heidegger’s philosophy (from which Ihde derives functional correlations), namely Husserl’s ‘*Ego-cogito-cogitatum*’ and Heidegger’s ‘Being-in-the-world’-interpretation of intentionality.

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<sup>96</sup> Ihde parallels Kuhn’s notion of paradigm shifts in science to technology and shows that Kuhn already alludes to the concomitant technological instruments that brought about the paradigmatic shifts in his explications of the ‘new science’ (cf. *IR*:12-22).

Secondly, ‘relations with machines are non-neutral<sup>97</sup> in the sense that they, by their very use, imply reflexive results for ourselves’ (TP:4).

The third underlying thesis in Ihde’s analysis of technics is that ‘[h]uman-machine relations are existential relations in which our fate and destiny are implicated, but which are subject to the very ambiguity found in all existential relations’ (TP:4). This ambiguity originates from our existence in the lifeworld. Therefore our very facticity ‘prevents’ us from conceptualising and forming ‘any total closure into...technocracy as an absolute mode of existence’ (TP:4). In other words, our very being in the world does not allow for complete technological determinism and therefore there are asymmetrical relations between human beings and technological systems or artefacts (albeit in this sense, total dominance of technics over human beings).

Working from this three-fold premise, Ihde draws diagrams (TP:6; ET:53-56) based on his first premise: Husserl’s and Heidegger’s notions of intentionality show *what is experienced*; that is,

Human → World,

The focus rests on experience, according to Ihde. However, reflection on our involvement with the world leads to a reflection of ourselves, as Ihde explains, and the interrelation between the world and the human being can be expressed as follows:

Human ⇔ World.

Based on Husserl’s notion that my relation to the world is intentional, and it is only in the world that I can understand myself through reflection, Ihde calls the relation between the world and I ‘interactive’. I project myself in the world and ‘I find myself reflected in the world’ (Hickman, 1990:120). Ihde gives us three examples as variations of this interactive or ‘projective-reflective’ relationship between self and world, which I believe is based on Cassirer’s model of technology (cf. Krois, 1983:71-76).

Ihde’s first example is a hunter-gatherer society, which has a relatively low level of technology, and where the main concerns are hunting animals and gathering plants to sustain the community. Ihde regards a culture’s concerns as the determining factor in the types of knowledge that its members possess and the ways in which this knowledge is

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<sup>97</sup> Again, referring to Merleau-Ponty, all forms of perception are already meaningful, which makes perception



transmitted (Hickman, 1990:120-121). In this example, these may be the hunting rituals and dances and applying associations between parts of the body and medicinal plants for healing those parts of the body. Therefore, the relationship of 'similarity' and 'likeness' between the human body and the world is characteristic of this culture's form of life.

In his second example, Ihde refers to an agricultural society, in which the main concerns are the seasonal and life cycles of their crops and herds. This cultural form of life is characterized by the relationship of correlation between human and world.

Ihde then describes a mechanized form of life as characterized by impersonal and machine-like relations. The human body is also thought of as a machine. Hickman (1990:121) regards this form of life as characterized by its relationship of 'objectification'.

Ihde's concludes that these different forms of life relate to one another in three ways. Firstly, there is some form of 'projection-reflection' relation between humans and the world. Secondly, each form of life is 'anthropomorphized', in that the 'projection-reflection' structures and outcomes are human products of human concerns. Thirdly, our own contemporary manner of 'projection-reflection' is functionally equivalent to agricultural and mechanized forms of life. Therefore, in our contemporary life, practice precedes cognition and the self is placed in and is part of the world, rather than separate from the world. In our contemporary life, our 'self-knowledge' has improved (Hickman, 1990:121).

Now let us look at Cassirer's model. In 1930 Cassirer held technology to be symbolic forms, that is, as forms of interpretations of human beings' understanding of reality (Krois, 1983:71). His analysis of technology starts with the mythological world, as the first kind of symbolic interpretation, as the point of departure for his presentation of the development in the history of technology. Cassirer divides the history of technology as a symbolic form into three phases, which he named the 'mimetic', the 'analogy' (or 'similarity'/'likeness') and 'pure symbolic' phases.

In the 'mimetic-sympathetic' phase, human actions appeared in the context of a sympathetic whole, in which inanimate and non-human things appeared to be living things (Krois, 1983:72). These cultures' sympathy with things was reflected in ritual and magic practices. They believed that their will could not be differentiated from nature's

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of the world with or without the technological 'interference' non-neutral.



processes. Sprinkling water drops on a heated stone to drive rain clouds away, or humans falling onto dry ground in order to attract rain were instances of such magic practices. Humans performed mimetic acts, believing that these mimetic acts coincided with nature (Krois, 1983:72).

For Cassirer, the factor that distinguished the ‘extended likeness’ (*analogish-erweiternd*) (Krois, 1983:72) phase from the mimetic phase was the use of tools. In this second phase of the development of technology, human beings regarded tools as objects of causality, that is, as independent of human desire or magic. There were certain ways in which technological tools had to be acted on. For instance, a hammer was more than just an object; it required a certain application and actions which formed part of a larger system of objective processes. Tools and implements were seen as an analogy to manual human labour (Krois, 1983:73). As the extension of the hand, the arm or the eyes, tools could perform faster, better and without fatigue.

As soon as technology became completely autonomous, human desire was replaced by human will. This last phase in the development of technology was purely symbolic, a manner of interpretation that was only concerned with technological possibilities. This ‘pure symbolic, without example/model’ phase in the development of technology saw technology as the means without which the ends people had in mind could not be achieved. Technology became ‘emancipated’ from humans (Krois, 1983:73).<sup>98</sup> Unlike Marx, Cassirer believes that humans are ‘symbolic animals’ and therefore cannot be classified as nature. For Cassirer, technology does not alienate humans from themselves, but is rather an expression of human beings’ creative abilities.<sup>99</sup> From this, we can conclude that Cassirer and hence Ihde have a fairly positive view of technology in our lifeworld.

In my view, Ihde applies and draws most of his views (regarding technological mediation, human-technology relations and the notion of what kind of world is revealed by technology) from Heidegger. From this point of view, I believe that, in his original structure, Ihde already implies a ‘Human  $\Leftrightarrow$  World’ and a ‘Human  $\Leftrightarrow$  technological world’, onto which his structural analyses of relations could be built. In his later texts, *TL* and

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<sup>98</sup> Krois (1983:73) quotes Cassirer: ‘*Was die Instrumente der vollentwickelten Technik von den primitiven Werkzeugen trennt, ist eben dies, daß sie sich von dem Vorbild, das ihnen die Natur unmittelbar zu bieten vermag, freigemacht und gewissermaßen losgesagt haben.*’

<sup>99</sup> Cassirer believes that the effects of technology on society are latently ethical and should be cause for hope. From his philosophy of symbolic forms, Cassirer developed an ethics and a social philosophy. In his late philosophy, Cassirer argues that critical individual self-control would evolve into a moral attitude in society, not driven by individual will (Krois, 1983:75,76).

*Bodies in Technology (BT)*, Ihde shows that through cultural transfer of technology and embedded cultural perceptions, our relations with the world (as a meaningful structure) in our epoch are already technologically mediated. He presents a model of four different structures (within each of which a vast range of variations is possible) of human experience by means of/through/with technological instruments or artefacts within the human-world relational model.

It is important to note that the first three structures laid out below are invariant structures that apply to different cultures and contexts (cf. Eason, 2003:178). These structures are, firstly, embodiment relations; secondly, hermeneutic relations; thirdly, alterity relations; and fourthly, background relations.<sup>100</sup> Ihde mentions a possible fifth structure that he places under the heading 'horizontal phenomena'. I think it is necessary to note (before we look more closely at Ihde's model) that he calls himself a 'critical phenomenologist' in terms of his epistemology (cf. Eason *et al.*, 1993:129). He marginalises the ethical and moral implications of a vast range of technical praxes, but Ihde includes these aspects in an extended model in his later texts. Now let us return to each of the structural modes of human-technology relations that Ihde built onto the initial sketch of non-mediated experience in the intentional relation between human beings and the world.

### 3.2.1.1 Embodiment relations

Ihde's initial presentation of this model ('Human-machine → World') shows that in embodiment relations, the proper placing of the technological artefact in the correlation is important. Experience of the world happens by means of (or through) the artefact that plays a qualitatively different mediating role from artefacts that are involved in other relations.

Ihde describes the human-technology relation in his example of writing on a blackboard with a piece of chalk (*TP*:7). Through the end of the chalk against the blackboard, I can feel the roughness or smoothness of the board in a similar way that Merleau-Ponty's blind man feels the world through the tip of his cane. The 'machine'/artefact becomes a metaphorical conduit for the extension of the body's tactile perception of the world. The piece of chalk is not the 'object' of my experience, since the 'terminus' of my intention is the blackboard, its texture and hardness, which become tactile in its reciprocity. 'I experience the blackboard through the chalk; the chalk being taken into my "self-

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<sup>100</sup> As explicated in *TP*, Ch. 1-4; *ET*, Ch. 3,5,7 & 9 and *Technology and the Lifeworld (TL)*, Ch. 4-6..



experiencing”...the chalk is [primarily] absorbed into my experiencing as an extension of myself’ (TP:7).

The device (artefact) becomes absorbed into my body *schema*, as Merleau-Ponty would describe it. Within this embodiment relation, the chalk becomes perceptually partly transparent, according to Ihde, and the closer the device or artefact’s performance is to the original purpose for its use, and the less resistance it receives from the world in its use, the more (perceptually) transparent it is. In embodiment relations, the artefact<sup>101</sup> involved in the relation extends and transforms my experience in a specific way.

However, in embodiment relations, the perception of one sense is magnified by means of the technological device (for example, hearing in the use of a telephone), but there is a ‘price to pay’, as other bodily senses, such as the visual sense or tactility are ‘diminished’ in relation to my auditory perception through the telephone, which is very different to ‘experience[ing] in the flesh’ (TP:9).

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<sup>101</sup> Negrotti (2002:5) distinguishes between artefacts as ‘conventional technology’ and ‘artificial technology’: both technologies are ‘man made’ but artificial technology ‘implicitly or explicitly, aims to reproduce something existing in nature’ (Negrotti, 2002:4). According to Negrotti (2002:4), there is a dichotomy between conventional and artificial technology ‘that tracks a distinction that...has never been clearly drawn’. There is a vast range of phenomena that are not ‘just technological’. Negrotti bases his differentiation on the basic human qualities as ‘aptitudes’ that motivate these technologies and which give rise to different types of social and cultural behaviours and praxes. This distinction can be applied to all technological traditions through the ages and is still applicable, according to Negrotti (2002:4), even to nanotechnology. In terms of Don Ihde’s explications of the intentional relational structures between human beings and technology (and human beings and the natural world) and the roles technologies play in the various relations, I suggest Negrotti’s model for distinguishing between artificial and conventional technologies. Artificial technology is largely included in the extremes of Ihde’s notion of the intentional human-world relation that technologies mediate. There is a continuum of relations between humans and technology. The one extreme in Ihde’s groupings of human-technology relations (when the artefact becomes the ‘quasi-I’) is embodied relations in the experience of the lifeworld.

The relation in which technology becomes embodied or a ‘quasi-I’ would include situations or instances in which the artificial consists of bioengineering technologies such as artificial limbs, or in my view, any technologies or artefact that ‘replaces’ the natural aspects of the human body, for example, artificial cornea, cochlear implants and ‘stents’. In terms of Ihde’s classifications, many instances of bio-technological artefacts which become embodied in our experience of the world, such as a heart pace-maker, will also be instances in which alterity relations or hermeneutic relations are constituted between humans and technologies.

The other extreme in the range of human-technology relations by which our experiences of the world are mediated, would be, for instance, background - and horizontal relations. Situations or conditions in which the artificial technologies tend towards the imitation of the natural world, to become the ‘quasi-other’ in terms of human-technology relations, would include our experience in and of built space in which artificial lighting, air-conditioning systems, dwelling complexes and urban settlements with artificial forests and lakes form part of the relations.

In my view, artificial technologies intensify the relation between humans and the natural world because of its specific inherent characteristic of referring directly to nature, unlike the technologies in hermeneutic relations. Although Ihde refers to artificial technologies in the shape of bio-engineering (TL:12-15), in his explication of horizontal relations, the nature of the artificial (imitation of nature) in relation to human invention and the distinctions might further enrich Ihde’s philosophy and deserves to be studied in much more depth.





Ihde argues that these transformations form a sub-class of embodiment relations called 'sensory-extension-reduction relations' (TP:9). With this in mind, Ihde identifies two invariants in terms of embodiment relations. The first is

the experience of an otherness...the experience through a machine must be described as a partially transparent relation...Secondly and simultaneously, the experience is a transformed experience which has a difference between it and all 'face to face' or 'in the flesh' experiences. This transformation contains the possibilities, again co-implied, of both a certain extension and amplification of experience and of a reduction and transformation of experience. (TP:10)

Ihde might imply a double transformation of perception: firstly, by using the physical instrument in order to enhance my perceptual or other bodily capacities, and secondly, my interpretation of what is given to my perception, which is mediated by means of my body. When I use a microscope, the place and situation (the here and now) in which I find myself recede into the background (of my perceptual horizon). The spectacle under the microscope is perceived and interpreted by means of my body. Thus the 'sensory-extension-reduction' relation in my view is rather to be interpreted in terms of a *Gestalt* where the technological artefact mediates (increases) my *focus* on the 'figure', (be it a visual, tactile or auditory focus) against the background in which my body, as Merleau-Ponty says, is the third term in the figure and double background relation.

In this sense, I propose that there are not many differences between focusing on a personal 'face to face' conversation with someone while my eyes wander to the outline of a building against the blue sky in the background behind his or her head and perception by means of certain embodied 'imaging' technologies. Because I am engaged with and focused on the person and the conversation (that is, on the figure), the passers-by and the silhouette of the building are not consciously 'seen'; I am even less aware of my tactile experience of the briefcase in my hand. From both examples, it is clear that I am not consciously aware of my habitual body, since some aspects of my bodily perception (in both cases) recede into the background against which the figure stands out.

I therefore disagree with the second transformation, namely, the concomitant 'sensory reduction' due to sensory extension since it occurs in both technologically mediated/transformed perceptual experience and direct (unmediated) perception. In the use of a microscope or telescope, my visual sense is not extended to the edge of the outer lens of the 'machine'; rather, my visual sense is magnified while my visual perceptual field is greatly reduced by my use of the microscope (I see more of one thing which fills my

visual field) and similarly, the visual sense is amplified by means of the telescope, by means of which my visual perceptual field is enlarged (I see more of a lot of things). In both senses, the perceptual field of all my other senses remains unchanged. However, if Ihde adopts Merleau-Ponty's notion that to see something is to 'inhabit' it, one may conclude that the intentional 'terminus' (for example, the cells of a fly's eye through a microscope) lies in the perceived object (the cells themselves and not the image of the cells).

According to Ihde, while the macroscopic and the microscopic appear within the same near-distance, we understand it (according to Pascal) because humans' self-interpretation is that of being located between the 'infinitely large and the infinitely small' (TL:79). 'What happens through the mediation is not a problem, because our construction of the observation presupposes ordinary praxical spatiality' (TL:79). Merleau-Ponty's argument for a new definition of reality accessible through the mediation of technology is possible only by means of the intertwining of the 'observer' and 'observed'.

From Merleau-Ponty's point of view, sensation is intentional, because 'in the sensible [I find] a certain rhythm of existence is put forward - abduction or adduction - and... following up this hint, and stealing into the form of existence which is thus suggested to me, I am brought into relation with an external being...If the qualities radiate around [sensations] a certain mode of existence....this is because the sentient subject does not posit them as objects, but enters into a sympathetic relation with them, makes them his own and finds in them his momentary law' (PP:213-214).

For Merleau-Ponty, sensory experience is a form of existence which implies that 'I can at each moment absorb myself almost wholly into the sense of touch or sight, and ...I can never see or touch without my consciousness becoming thereby in some measure saturated and losing something of its availability' (PP:221). Merleau-Ponty adds that 'sensation as it is brought to use by experience is not some inert substance or abstract moment, but one of our surfaces of contact with being, a structure of consciousness...a universal condition for all qualities' (PP:221).

This shows us that in a sense experience, one sense, for example, vision, 'occupies' my consciousness to the extent that the experience 'loses something of its availability' to other sense experiences like touch or hearing, although all the senses work in unison (as an orchestra). One sense experience may be privileged, depending on the context and



situation. Thus in a natural sense experience, there is already some form of ‘reduction’ present. Ultimately, sensory experience is ‘unstable and alien to natural perception, which we achieve with our whole body all at once, and which opens on a world of inter-acting senses’ (PP:225).

In many of Ihde’s explications of perception by means of or of machines, only one sense takes priority over others, especially the visual sense. Most ‘lens instruments’ rely solely on our visual sense. Along with that, the specific sense experience is augmented and even ‘extended’ by the instrument. If I take Merleau-Ponty’s phenomenology of perception as the basis for perception in Ihde’s explications, it follows that the sensory experience of vision that is mediated by technology is unstable and alien to natural perception. Although the role that technology plays in the intentionality structure is that of a non-neutral ‘mediation’, as it ‘coshapes’ our experience of and relation with the world, in certain instances, the technological artefact also dictates the way it is used, like Ihde’s example of the fountain pen, typewriter and word processor (Verbeek, 2005b:114).

Mediation occurs in three ways. Firstly, it may dictate the artefact’s use. Secondly, it can facilitate a technological ‘telos’ or intentionality. I would suggest that the result of this role is not perception that is ‘mediated’, but rather perception that is radically altered (even if the instrument is partially ‘transparent’ in the embodiment relation). Thirdly, there is mediation in terms of the material object as a physical ‘intermediary’ or ‘in-between’ the human being and the world.

The extension-reduction transformation of experience by means of our use of artefacts leads me to question the extent to which our experience of the world is transformed. Ihde has an answer to my objection about the magnification of one sense while others are reduced in embodiment relations - he concurs with Merleau-Ponty’s notion that my body has a general ‘understanding’ of its situational setting in the world, with which I agree.

However, I turn again to Merleau-Ponty, who describes a phenomenon that only strikes one of my senses, as ‘a mere phantom’ unless ‘it becomes capable of speaking to my other senses’ (PP:318). Thus any object that is presented to one sense ‘calls upon itself the concordant operation of all the others...I perceive a thing because I have a field of existence and because each phenomenon, on its appearance, attracts towards that field the whole of my body as a system of perceptual powers’ (PP:318). This aspect, in my view, is unattainable in certain embodiment relations. For instance, when we use a telescope or,

more especially, a microscope, we focus on a visual ‘target’, but the magnified visual phenomenon is context-less. In terms of Merleau-Ponty’s argument, unless the perception of a phenomenon (say, a painting by Cézanne) ‘signifies by itself all the responses...by the remaining senses’ (*PP*:319), or contains within the ‘image’ (say, seen through the microscope) the symbolism that contains the other senses, the enlarged image viewed through the microscope cannot be called ‘perceived’ in the ‘whole-body’ sense of the word.

Merleau-Ponty describes the coinciding of motor and perceptual habits: as the blind man learns to use his stick, he acquires the skills in the form of a motor habit to perceive those aspects of the world as tactile perception (*PP*:152). For Ihde, embodiment relations are perceptual, but Brey (2000a: 46) argues that embodiment relations are very often behavioural and proprioceptive. Thus Brey (2000a:46) differentiates (in Ihde’s analyses) two kinds of technologically mediated experiences of the world: firstly, what is perceived through embodied artefacts and, secondly, ‘proprioceptive “experiences” or representations of the location and orientation of embodied artefacts’. Ihde describes recurring patterns of experience in the different ways people interact with technology, which Brey (2000a:46,47) calls ‘a taxonomy’ of human-technology relations, albeit from a phenomenological perspective.

Brey (2000a) continues his argument by referring to Heidegger’s hammer as an instance of embodiment relations, insofar it is an instrument to ‘act on the world’, while simultaneously giving perceptual feedback from the world to the perceiver. These aspects have been analysed by Merleau-Ponty as motor and perceptual skills, as part of the intentionality of ‘body-subject’ being-in-the-world. The examples from *PP* used in Ihde’s explications of embodiment relations are the woman with the feathered hat and the blind man’s cane. One might say that the motor and perceptual habit applies to the blind man’s skill and ease of handling the cane. Like an insect’s antennae, he swings the cane, which touches the ground lightly every now and then, and he also acquires the skill of differentiating between different aspects of objects in the world, for example, its topography, texture, distance, hard or soft surfaces and different materials.

Motor and perceptual habit is thus a way of communicating between the technologically embodied human being and the world. Ihde neglects to give account of how embodiment relations are constituted (cf. Brey, 2000a:46), but Merleau-Ponty describes this principle in the instances of the blind man and woman with the feathered hat. The artefacts have

become embodied in their 'style' of moving around (once they have acquired the habit of doing so effortlessly), since the embodiment of the artefacts has brought about a correlating change to their body *schemas*.

I would also say that the blind man has to perform concomitant hermeneutic perceptual acts, for instance, he has to interpret what a street's surface feels like through the cane's tip, combined with hearing oncoming traffic in relation to his tactile experience of the surface texture and temperature with his hands or bare feet. He must interpret what the sound of oncoming traffic means in order for him not to proceed to walking on a given surface. In our technologically textured lifeworld, there are vast ranges of hermeneutic perceptual acts, even in unmediated perception, such as the symbol of the red man on the traffic light for the pedestrian standing at a street crossing while vehicles pass by.

With this example I want to show that in all our acts of engagement with (technology and) the world, general hermeneutic acts of interpretation take place, as we constantly interpret our world. Thus all perception is also a hermeneutic act. In all of Ihde's human-technology relations, this is surely implied, although this 'general' understanding of the term 'hermeneutics' is not what Ihde has in mind in his explications of human-technology relations, especially when it comes to microperception. Therefore, I return to Heidegger's famous example of the hammer as a useful analysis of the use of instruments. It explains the relation of embodiment between the human being and the instrument. When a carpenter uses a hammer to drive in a nail, the instrument is 'ready-to-hand'; it 'withdraws' or recedes into the background, because his focus is the nail, which is the object of his intention.

The hammer functions within the situation that it is used in and therefore the carpenter actually experiences the act of driving in the nail, with his focus on the nail and its position on the timber (*ET*:50; Verbeek, 2001:125). The tool does not exist by itself, but solely in its context or situation of use; thus a tool is a tool in its 'readiness-to-hand'. When the tool, for any reason, cannot be used in its context of use, the hammer 'imposes its presence' on us; in that case, the hammer is what Heidegger calls 'present-at-hand' (Verbeek, 2001:125; *TL*:33, 97).

Ihde identifies three elements of significance in Heidegger's analysis of how tools are present to human beings. Firstly, the tool can be used in and related to a certain context that forms part of a meaningful whole. Secondly, tools or equipment are means to certain

ends; they have an ‘instrumental intentionality’ or are ‘something in order to\_\_\_’. Thirdly, ‘when the tool is in use, it is a means of experience, rather than an object of experience’ (Verbeek, 2001:125-126).<sup>102</sup>

I would like to point out that the example of Heidegger’s ‘hammer’ is not only applicable to technological-embodiment relations, but it is also applicable to Ihde’s other types of human-technology relations. As I explained earlier, the less resistance is experienced from the world (by means of the instrument) and the more the artefact or instrument performs and functions according to its intended use, the more the artefact ‘withdraws’ into the background (and is therefore perceived as partially transparent) while I use it to interact with the world.

In the following diagram of technology-embodiment relations, Ihde places the embodiment relation in parentheses to show the phenomenological differences in the mediating role that technology plays in terms of the original (Husserlian-Heideggerian intentional correlation) structure. In the case of wearing spectacles, for instance, there is what Ihde calls ‘a partial symbiosis’ (*TP: 8*) between the human being and the spectacles. This is indicated as follows:

(Human-technology) → World.

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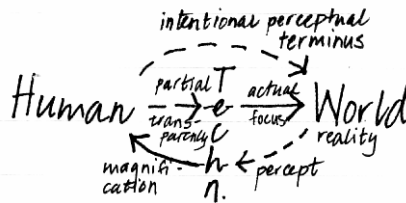
<sup>102</sup> The technological tool or artefact referred to in its intended use and as a means of experience is that with which I am in an embodiment relation while I engage with the world, and not (in terms of Ihde’s analysis) in a hermeneutic relation between the artefact and the human being (when the artefact/instrument is the locus of my perception where information about the real world is given to me by the instrument in the form of data/symbols that I have to interpret).

Miller (2005:56-57) gives a comprehensive definition of an artefact in terms of social intentionality, its use, causal functionality and its differentiation as institutional or technical:

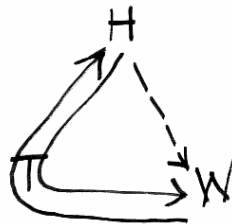
In the paradigm case, artefacts are physical objects whose physical property set has been designed by members of a social group to be used by agents in that group to achieve certain outcomes, and they are so used. Such paradigm cases include what might be regarded as non-institutional artefacts such as screwdrivers (technical objects), as well as institutional artefacts such as coins. The distinction between institutional and non-institutional artefacts is problematic, especially given that both institutional and non-institutional artefacts have both a physical and an intentional dimension. However, my suggestion is that the distinction can be made out in terms of the different purposes or functions of these two categories of artefact. Roughly speaking, non-institutional artefacts, such as screwdrivers, have as their purpose or function to bring about changes in the physical world, e.g., to bring it about that screws are driven in or extracted. By contrast, institutional artefacts qua institutional artefacts have as their purpose or function to bring about changes in the institutional world, e.g., to bring it about that a person now owns the product he exchanged his coins for.

He terms institutional artefacts that bring about changes in the institutional world as ‘the status-function of institutional artefacts’. This description is applicable to buildings as a series of social artefacts, both institutional and non-institutional, as they contain the physical and intentional dimensions as well as the functional purpose to bring about changes, as Miller mentions. This analysis

The more technology ‘withdraws’ or becomes ‘transparent’, the more human action (embodied with, by or through technology) comes to the fore. An idealist position regarding technology (in this instance, ‘idealist’ means the wish for complete technological efficiency to such an extent that we are almost unaware of its presence, I believe) would be to strive for ‘total transparency’, a technologically mediated experience that is equivalent to non-mediated perception. (Ultimately the idealist’s secret dream, according to Ihde, is for there to be no technology at all - ET:51). I interpret Ihde’s explication of embodiment relations as follows:



Simplified:



In an embodiment relation that involves a technical artefact, I am intentionally directed towards the world through the partially ‘transparent’ artefact or instrument. The artefact or instrument facilitates and conducts my intentional perceptual ‘contact’ and extends my body in order to experience some aspect of the world or an object in the world in a mediated manner. The object or an aspect of the world (as reality) is magnified by means of the instrument and ‘relays’ the magnification of the object back to me. A dentist’s probe, spectacles or telephone magnifies a specific human sense, whether it is the tactile, visual or auditory sense. This process happens simultaneously, and in the case of technologically embodied perception, the world or object in the world is experienced more directly (although magnified).

When a technical artefact becomes part of our body *schema* (as it is involved in an embodiment relation), the higher the level of skill with which I use and handle the artefact, the more transparent it becomes and the more it ‘recedes’ into the background

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deserves further study especially in terms of building typologies. It must be remembered that



while mediating my perception and experience of reality (Wolff, 2009:notes). In many situations, we could simultaneously have different structural relations with different technological artefacts. For instance, the scuba diver's perception of the underwater world is made possible and transformed by his or her embodiment relation to the diving gear which enables relatively easy movement. Breathing, sight and a stable body temperature remains similar to unmediated experience on land. The diver knows from the readings on the pressure gauges and oxygen levels when it is safe to dive at a deeper level. Similarly, a bricklayer (wearing gloves) who places mortar with his trowel while using a spirit level experiences a combination of instrumentally mediated bodily sense-magnifications and reductions.<sup>103</sup>

Another type of extension or magnification of a natural human capability is Carl Mitcham's examples of machines that are not necessarily involved in embodiment relations with humans, a mechanical instrument such as a pile driver (a huge pneumatic 'hammer' that drives concrete poles into the earth, operated by someone who pushes buttons in the machine's control booth). Compared to using a hammer, which Mitcham (1994:176) regards as an abstraction of the human fist while energy and power is still generated by human muscles, the pneumatic hammer's power is generated by pneumatics produced by its own operation.

Thus the mechanical operation is a total abstraction and qualitatively different from an embodied tool (Mitcham, 1994:176-178). We can see that not all appearances of technology in its being 'present-at-hand' are experienced negatively; in some human-instrument relations, the instrument has a positive appearance, which we find in Ihde's wide spectrum of instruments that are involved in technology-embodiment relations, for instance, in a hermeneutic relation when our body relates directly with or to technology.

### 3.2.1.2 *Hermeneutic relations*

Because doubts were raised about modernist epistemologies in the Euro-American context, a different epistemology, which aims to find the relevance of hermeneutics for the sciences, was proposed. The problem was how hermeneutics itself was to be understood: one could first understand hermeneutics, and then understand science, and then simply

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technologically mediated social intentionality may also have undesired or unexpected results.

<sup>103</sup> Husserl's influence is noticeable in Ihde's notion of sense magnification-reduction: where Ihde draws a parallel to Husserl's idea of discovering and concealing in cultural acquisition or gain in one sense and simultaneous loss in another (cf. *IR*:21).



relate the two. However, the problem was much more complex, in that the terms were neither clear nor stand in isolation. Ihde (n.d.) claims that hermeneutics should be understood in relation to science, including the philosophies of science that are often taken implicitly for either science itself or for how science is to be understood. ‘Hermeneutic’, for Ihde, means ‘a praxis-perception model of interpretation relevant to the context of philosophy of science and technology’ (*IR:23*).

Historically, hermeneutics’ primary model is related to the interpretation of texts (*TP:32*), which Ihde uses as metaphor to show the qualitative change in the type of mediation-position that the instrument can have in his structural intentionality continuum (*TP:32*). The main characteristic of Ihde’s hermeneutic relations is the interpretation of the representation of the world by means of technology. The artefact involved in a hermeneutic relation is the terminus of my perception - the machine itself ‘imports’ that aspect of the ‘real world’ which I cannot naturally or would not normally perceive in my everyday life (*TL:91*).

Ihde suggests that, although it is in hermeneutic relations between humans and technical artefacts or machines that the technology itself is experienced, it does not necessarily follow that the technology is merely an ‘object’ of experience (*TP:55*), rather, my experience is with the machine or instrument. ‘Hermeneutical relations... are more language oriented or quantitatively designed and less perceptually direct (such as those found in the use of instrument panels or other types of display instrumentation)’ (Ihde, 1997:691-692).

Nevertheless, in our use of the technological artefact in which the artefact is or gives the only representation of that part of the world which we wish to experience, a hermeneutic relation is established in which our perception of the world is mediated by the artefact . This leads to an indirect experience of the world. The instrument as mediator has distinct features and designed attributes, which can be described phenomenologically. For example, an MRI brain scanner scans cross-sectional images of a human brain in such a way that it necessitates a slow moving flat bed on which the patient lies with the patient’s whole body covered with a lead apron, except for his or her head. To record a series of sectional images of the brain, the bed moves the person’s body head first into a ‘tunnel’ which accommodates the stationary scanner equipment.

The radiologist operates and feeds data into the machine, stands behind an eye level safety glass viewing window built into a lead-covered screen wall and ‘reads’ the series of images of the brain on the computer screen. One can say that the machine dictates certain praxes from the operator and the patient in order to deliver the desired results. In this hermeneutic relation with the instrument, the operator also has to have acquired the skills needed to interpret the meaning of the signs, data or images that are displayed or produced by the instrument.

The instrument is designed to encode the physical world and to represent its aspect as an abstraction in textual, visual, digitised or coded form. We first have to decode and then interpret that system of abstractions in order to understand that aspect of the physical world. Some examples of hermeneutic relations in my own immediate context would be my digitised clock radio, a thermometer and my bathroom scale. Ihde writes that there is a partial opacity between the machine and the world in hermeneutic relations, whereas the partial transparency between the human perceiver and machine is present in embodiment relations.<sup>104</sup> This means that it may be much more difficult to recognise or become aware of a malfunction in the instrument’s program software, or that the texts or data given to us to interpret are indeed a correct representation of the world, than in the case of a malfunctioning artefact in an embodiment relation. It is also common everyday practice to have different relations with the same technological artefact, for instance, a digital wristwatch. Ihde presents the hermeneutic relation as follows (*TP:12*):

Human<sup>105</sup> → (machine-World)

Ihde says, ‘the closer to a focal thematized “other” the machine becomes the more the significance of World must take on machine-like appearance characteristics’ (*TP:13*). In other words, the machine as ‘other’ which has ‘translated’ aspects of the real world into signs, codes, figures or text, gives me the translated data which I have to ‘re-translate’ or

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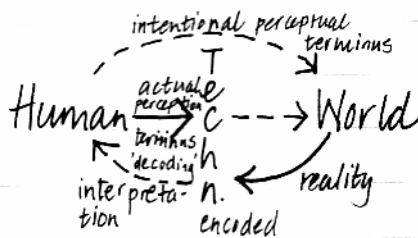
<sup>104</sup> I would rather say that, if there is a partial transparency between the human and artefact, as well as the artefact and the world in an embodiment relation, then there should be a partial opacity in the direct hermeneutic relation between the human being and the machine. Subsequently, there would also be a partial transparency between the machine and the world; the latter processes and relation are opaque to our unmediated perception.

<sup>105</sup> In his later texts, Ihde replaces the word ‘Human’ with ‘I’ (cf. *TL* Ch 5), which might give us the notion of the body-subject and world interrelation as specific instead of a universal, anonymous and general, intentional and interrelational structure. My interpretation of Ihde’s later texts is that they do not differ from his earlier texts in terms of the intentional structure between body and world as mediated through technology in its various relational structures with human beings. There are, however, expansions and more detailed descriptions and examples of certain aspects of his earlier work. He alludes to contemporary issues such as ethics, gender, politics and ecology, and relates them to his original structural explication of technology.

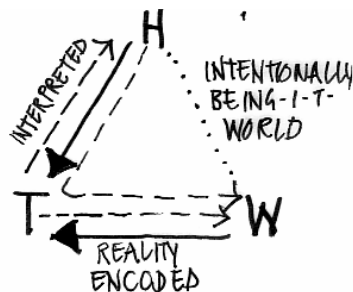
decode and interpret back into a representation of the real world. Therefore, no direct perception of the world takes place. Thus:

Human → (machine-world)

Similarly, I can ‘read’ a vast range of icons and signs in the world of architecture, for instance, a building or complex of buildings such as the Union Buildings, Hong Kong and Shanghai Bank or the Burj Al Arab hotel in Dubai, which are symbols of political and economic power and architectural/engineering skill. My interpretation of Ihde’s analysis of hermeneutic relations is as follows:



Simplified:



The solid arrows indicate the direction and position of action: the perceptual act ends with the machine, the location of the enquiry, which might require information or manipulation by the human being regarding the ‘what’ of the enquiry which is in the world, which is relayed by means of the machine to the world (the terminus of the perceptual intentionality. The world ‘answers’ (according to Merleau-Ponty) insofar as the human being and world are mutually constituted, and the world gives reality as it is to the intentional object (instrument) which organises ‘reality’ into a text, or symbols as a mode of relaying information to the human who is the original enquirer, who has to perform a hermeneutic act in order to grasp that reality.



We are born into cultural worlds (culture is the sedimentation of people into things, as Merleau-Ponty would say). Our worlds are layered with technology. One can almost go so far as to say that our initial primordial experience of nature is already technologically transformed to some degree. Merleau-Ponty alludes to an unmediated perception (and technical hermeneutic interpretation) of the interrelation between nature and technology in his explication of inter-sensory perception in our relation to things. When I look at a wheelbarrow loaded with bricks, I can ‘see’ weight as the wheel displaces the sand below it. My body ‘understands’ gravity and the effort to lift or push the wheelbarrow, as if I can already feel the weight by looking at the sight of the wheelbarrow and the displaced sand (cf. *PP*:227-230,325-327).

I believe that this bodily understanding of the world is acquired to become ‘habitus’ (cf. Wolff, 2009b); the technical potential we are born into is developed by our being in the world. So too, our interaction with technology can become ‘second nature’ in our everyday lives. Merleau-Ponty’s, Mauss’s and Bordieu’s explications of techniques (Wolff, 2009b) and habits are applicable to our interaction with technical instruments, an important notion of the human body’s spontaneous and habitual engagement with our lifeworld which, I believe, Ihde neglects.

### *3.2.1.3 Alterity relations*

We interact with technologies in our everyday lives. To get an idea of our interwoven experiences of and interactions with technology we do not have to look far: think of using GPS navigation, parking access machines, ATMs, remote controlled security systems, coffee percolator- alarm clocks and so forth. Our everyday technologically interwoven experiences may either be negative (alienating) or positive (technologically interactive), depending on our individual perspectives. The phenomenological explications of the ‘other’, as well as its implications in alterity relations between technology and the human being is complex. Let us turn to Ihde’s explications thereof.

What Ihde means by the term ‘alterity’ in terms of praxis includes ‘an analysis of the positive [experiential aspects outlining the relation of] humans [and] technology as relations to or with technologies, [moreover] to technology-as-other’ (*TL*:98,100). Ihde borrows the term from Levinas,<sup>106</sup> but Ihde modifies it for his analysis of human-technology

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<sup>106</sup> In Husserl’s philosophy the ‘other’ is implied in his concept of inter-subjectivity that is based on looking for similarities to oneself that one discovers in the other. Levinas criticises Husserl’s conception of the ‘other’. For Levinas, it is the very difference that distinguishes the ‘other’ from me (Moran, 2005:337). In his own



relations (TL:98). Ihde poses the difficult question of how and to what extent technology can become ‘other’ or ‘quasi-other’, because the ranges of interpretations of technologies are vast.<sup>107</sup> They include ‘problematic’ areas such as anthropomorphism or the personalisation of artefacts, varying from computer ‘intelligence’ to assigning sacred attributes to artefacts in non-Western cultures (TL:100). Notwithstanding, the continued fascination with the ‘quasi-other’ dates back (as far as 200 BC) to the automaton in different lifeworlds and used in various contexts from theatrical plays to war technologies (TL:100).

According to Vesely (2004:290), modern anthropology has identified the ‘fascination with automatism’ as ‘the deepest motif of technicity’. This fascination is seen in the endless attempts to grasp what is incomprehensible in terms of what we can build, manipulate, or understand. Vesely describes these attempts as a ‘technization’ of the ‘original mimetic<sup>108</sup> re-enactment’. The phenomenon of interpreting ourselves by means of some ‘other’ is deeply rooted in metaphor, according to Ihde. This form of self-reflection and self-interpretation was chosen (in primitive contexts) by means of other living ‘things’ or beings such as plants, animals, other humans or the divine as relevant to humanness.

The insights derived from the ‘other’ were internalised as a metaphorical self-interpretation (ET:74). Ihde applies this model of human self-reflective self-interpretation mediated by other living things to human relations with technological artefacts, thus applying a metaphysical metaphor in the primitive ‘human - world’ relation to his universal ‘human - technology - world’ relation<sup>109</sup> as a trans-cultural phenomenon.<sup>110</sup> Ihde goes so far

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philosophy, Levinas distinguishes the ‘other’ (that refers to material objects that will always remain objects) and the ‘Other’ as human beings or God. Levinas writes about an infinite difference (Moran, 2005:337). In his analysis of technology, Ihde refers to Levinas’s concept of the ‘other’ as object. Merleau-Ponty also writes about the other as absolute: the depths of my being are made ready as I open myself to an absolute ‘Other’ (PP:326) in reaching out towards things to which I have no key in advance.

<sup>107</sup> Such as the interpretation of ‘artificial’ by Massimo Negrotti as the imitation or reproduction (the result is ‘man-made’) of something that exists in nature. Negrotti (2002:5) writes about ‘the efforts of men who try to reproduce natural instances through “macrotechnology” strategies, on the basis of analytical models they build for such instances’.

<sup>108</sup> Gadamer describes mimesis as representing the ‘universal characteristic of human existence [which is] the never-ending process of building a world [the process in which] mimesis reveals the mystery of order as a tension between its potential and actual existence, which ultimately always points toward the ultimate order - the cosmos’ (Vesely, 2004:289). According to Gadamer, ‘*mimesis* seems as valid now as it was in the past [and...] the re-enactment of cosmic order can be seen as the primordial form of making’ (Vesely, 2004:289). Vesely (2004:288) writes that mimetic-making occurs in ritual which precedes the formation of *technē*.

<sup>109</sup> Cf. Wolff’s (2009b) notion of de-contextualising and re-contextualising in terms of technology.

<sup>110</sup> Ihde claims that anthropomorphism and the personalization of artefacts is problematic, but we tend to seek human qualities in machines, thus projecting aspects of ourselves onto them in order to relate to the machine as the ‘quasi-other’. The boundaries between a non-human living ‘thing’ and a non-human artefact

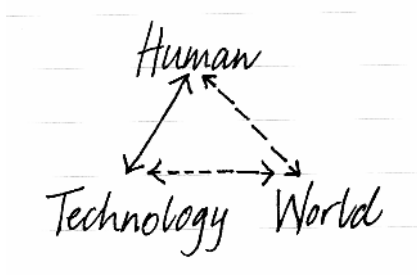
in his latest book (referring to post-modern writer Umberto Eco's semiotics of humans and non-humans in his novels) as to describe the 'character' of the 'other' in an esoteric human-technology relation in which non-humans initiate actions (BT:95).

Ihde points out that, however fascinating the 'quasi-other' may be, the 'quasi-other' is limited in terms of technological selectivity; but it may turn out that the possibility of changes to the initial 'instrumental intentionality' may lead to further and even more interesting developments and 'trajectories' in technology (TL:102). In alterity relations, the technology becomes the 'quasi-other' or 'technology as other to which I relate' (TL: 107). The machine or artefact appears in front of the world, as if it is experienced as the world. In his diagram, Ihde places 'World' in parenthesis to indicate that technology (in these relations) is experienced as 'the other', albeit not as completely autonomous:

Human → technology (-World).

Here Ihde shows that in alterity relations, the human being may be in a relation 'through' the technology to the world. For example, when I watch 'real time' or 'live' news on television, I am indirectly interacting with the 'other', and in that case, the television set is the point of contact. (Hence the hyphen in the parenthesised 'World'). In the television example and many other examples such as image technologies, the 'other' might just as well be experienced as instruments or artefacts in hermeneutic relations.

My interpretation:



I believe the main difference between alterity human-technical relations and hermeneutic human-technical relations is human intentionality. In hermeneutic technology-human relations, our intention is to understand aspects of the real world which are represented to us by means of a technological artefact or instrument. We perceive signs, symbols or data

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are blurred by the metaphor. Ihde does not explicitly refer to an ontology of the body in line with what Merleau-Ponty says; however, Ihde (2003:11,12) clearly states that he replaces 'subjectivity' with Merleau-Ponty's notion of 'embodiment'.

from the instrument which require human interpretation in order to understand an aspect of reality in the world. The locus of our direct perception is the instrument while our intentional perceptual locus is the world. In alterity relations, the loci of our intentional and direct perception end with the instrument/technological artefact, it is as if the artefact is an embodiment of the world.

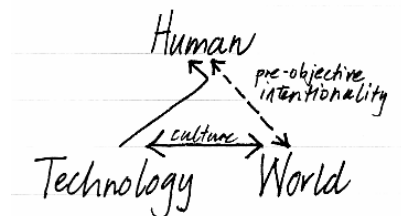
As I have argued so far, Ihde has shown that in different types of relations technology remains in the ‘foreground’ or ‘ready-to-hand’ in our experience in and of the world; technology is material or ‘artefactual’ (TL:108). However, there are also technologies in the background that are more neutral and on the periphery of our perceptual and conscious awareness, namely background relations.

### 3.2.1.4 Background relations

Based on Borgman’s notion of background relations, Ihde uses the example of air-conditioning systems (cf. Durbin, 2005: 98), which regulate room temperature, or other automated environmental controls such as lighting, white noise played in buildings from a centralised music system, but also the ‘white noise’ produced by the systems and appliances in the background. Ihde refers to our technological environment as a ‘technosphere’ or cocoon in which we find ourselves, encompassing all dimensions of our relations, which he sketches as follows:

Human → machine  
World (TP:14).

My interpretation:



This environment has become so comfortable to us that we almost cannot imagine our lives outside these cocoons (TP:13-14; Verbeek, 2001:131-132). The contexts that Ihde talks about in the above examples occur inside buildings in which the background technologies operate. From an architectural and engineering point of view, design and coordinating

efforts are made specifically to accommodate building services (which are experienced as background relations). Conduits, ducts, cable trays, and pipes are usually kept out of sight and are usually designed to be inconspicuous. Sometimes, however, these services become an aesthetic feature of the building, for example, in the Pompidou Centre in Paris and the Water Cube in Beijing, where the ‘transparency’ of structure and services are designed to be perceived as an active mechanical ‘organism’, or a machine with a circulating network of ‘nerves, arteries, lungs’ and a ‘peristaltic waste outlet system’.

Lhde also regards the urban setting (as a complex of interrelated buildings) as a field-like background phenomenon, which, depending on the climatic setting, varies from open shelters to completely insulated technological cocoons (a wished-for ‘totalized shelter technology into a virtual life-support system’ (TL:110)). City services such as traffic lights, roads, building services, lights, sidewalks and complexes of buildings form a permanent field-like background as we lead our daily lives and go about our daily activities.

As soon as there is a malfunction or breakdown of the background systems within these fields that are perceived (as Lhde terms it) as an ‘absent’ presence when functioning normally, the technology immediately announces its presence and becomes the focus which points out differences between the ‘conditioned’ and ‘un-conditioned’ contexts (TL:109,111).

An example of such a breakdown of background fields is the power failures in South Africa in recent years. Part of a national crisis contingency plan to address critical power shortages was to schedule periods for power shedding within municipal areas. The economic effects of such power interruptions were devastating, in addition to causing great inconvenience and discomfort in our living environments: traffic lights that do not function result in traffic jams; apart from a few battery-powered emergency lights in public buildings, telephone switchboards, computer networks, lighting, central heating systems, elevators and sliding entrance doors did not non-function during power-outs; banks, shops and restaurants had to close immediately for security reasons. (Even my own small personal ‘techno-sphere’ reminded me of my dependence on (functioning) technology when I tasted the sour milk in my cup of lukewarm coffee).

Our awareness of the differences in our contexts caused by malfunctions in the national power network forced institutions such as hospitals, schools and universities, the business and private sectors to take measures to prevent loss of functionality due to a lack of



electricity, for example, by installing solar-powered traffic lights and using solar energy for central heating equipment in houses. The positive effect of this malfunction was that the electricity crisis led to innovative energy-saving ideas and the implementation of alternative power sources. Moreover, national building authorities, architects and engineers recognised that they have a responsibility to design and implement energy-saving principles in the built environment.

We certainly do not have to experience crises like these to feel the extent of our dependence on technology in the urban environment; the degree of human consumption and exploitation of the natural resources that sustain our technologically interwoven lifeworld is a global concern. Individual and collective actions in their various relations with technology have far-reaching effects, whether they are valued as positive or negative.

The question arises whether technology perpetuates our increasing dependence on it: Healy (2008) questions the phenomenon of ‘climate control’ as the mere establishment of comfortable working environments, arguing that it originated from laboratory research, which was applied in the world as universal standards and norms for bodily comfort. Moreover, these standards were inscribed into building laws and codes (in the United States in the earlier twentieth century) in which the words ‘fresh air’ were to be omitted. For Healy, these standards contribute to a form of bio-technology, creating artificial ‘monotonous’ working environments with no contact with the natural world, while institutions strive to gain ‘optimum’ productivity from workers.

The results have led to our dependence at work and at home on some artificial background environments that are detrimental to geographically and culturally specific practices related to climatic conditions, such as the traditional ‘siesta’ in Mediterranean climates, the Nordic ice-bath and saunas, or the family practice of conversing on the breezy verandas in the southern parts of North America. Ultimately we are desensitized to our specific microclimates and, as it were, to the buildings built before the use of temperature and humidity control, when buildings (whether designed or not) were made to be responsive to the local climate (Healy, 2008:312-322).<sup>111</sup>

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<sup>111</sup> It should be stated that although there are many valid points in Healy’s argument, especially in terms of vernacular architecture and geography, I reject the notion of creating a direct relation between intentional institutional conditions of power and bodily comfort. Such a link may well be a result of technics, albeit, I believe, unintentional. On the other hand, one has to consider the effects of the political and socio-economic contexts before and after World War II (when these standards were established).



### 3.2.1.5 Horizontal relations

The last structure of Ihde's relational model, developed in (TL:112-115) is horizontal relations. Unfortunately, Ihde accords quite a small section in his texts to the important aspect of horizontal, relations probably because it demands complex and detailed explications, in addition to being a difficult subject area to demarcate. Ihde describes horizontal human-technology relations as those in which the technology's effects transform one's experience of the lifeworld, for instance, prescription medication for various ailments such as diabetes, high cholesterol, depression or high blood pressure.

People who have a fear of heights (acrophobia) or of small spaces (claustrophobia) or open public spaces (agoraphobia) experience their lifeworlds as potentially threatening, but this fear can be radically altered by medication and therapy. Even Merleau-Ponty's description of psychological experiments with hallucinogenic drugs may indicate a horizontal relation between the human body and substances or medication which result in significant changes in spatial experiences and perception (PP:228).

Some examples of Negrotti's (2002:96-105) notion of 'artificial technologies' can fit into Ihde's model of horizontal relations, for instance, artificial hip replacements or even hormonal treatments to increase or reduce human fertility.<sup>112</sup>

It is apparent that a vast range of bio-technics is subject to normative and moral stances. Ihde argues that horizontal relations can go as far as the notion that 'you are what you eat' (in fact, most of our daily food is genetically or hormonally altered). The question then arises whether it is possible to demarcate a boundary between technics and the body-subject. Ihde confirms that this is a very complex question. Nevertheless, I shall add another example of what I believe forms part of our horizontal relations with technology, namely what is called 'biometrics' (cf. Fällman, 1999:10) as a means of individual identification, based on our specific physiological differences, like fingerprints, iris scans or voice recognition technologies.

The reason for regarding biometrics as an instance of a horizontal technological relation is that the field of identification technics constantly evolves. It may soon become possible for biometric identification as a security precaution to take place without our even being

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<sup>112</sup> Some technics which Ihde 'classifies' under horizontal relations can also be instances of human-technical alterity relations, for instance, medical devices and birth control.

aware of it. Biometrics, birth control and even the production of food products, amongst other technics, may evolve into a form of bio-power (in the Foucauldian sense).

Although these examples may illuminate Ihde's study of the different human-technology relations, they may not be specifically relevant to our experience of built space. Most of these instances play out in their specific 'use' environments within specific phenomenological horizons. Thus it remains relevant that our technological epoch does determine the ways in which our different lifeworlds are made possible and how our experiences and perceptions are transformed by means of technical mediation.

To return to Ihde's main hermeneutic question on the role that technologies play in the way in which human beings interpret reality, Verbeek (2005b:128 ) suggests that the answer depends on what type of mediation one is inquiring into - direct or indirect mediation. It is important not to confuse direct or indirect mediation with direct and indirect human-technology relations or direct and indirect perception of technology in our lifeworlds. While Ihde (2002:137) says that all human-technology relations are two-way relations, I think that this argument applies only to direct human-technology relations such as embodiment, hermeneutic and alterity relations. Indirect human-technology relations would be background relations and horizontal relations, while direct and indirect perception of technology is what Ihde calls micro- and macro-perception. Nevertheless, let us seek the answer to the question of the role that technologies play in the way we interpret reality by exploring how Ihde sees technological mediation.

### **3.3 Technological mediation**

[For Ihde] the direct way of mediation in the origin of meaning, is the mediation of sensory perception. By shaping the way in which humans perceive reality in microperception, artefacts help to determine the possible ways in which [reality] can be interpreted. The indirect way concerns macroperception, or the technological mediation of frameworks of interpretation that co-shape the relation of humans to their world. (Verbeek, 2005b:128-129)

Verbeek describes Ihde's notion that micro- and macroperceptions are transformed by means of, with or by (or mediation of) technologies. Thus far we have seen how (in Ihde's structural relation model) our experience of the world is mediated by technologies in their different variations, ranging from the 'quasi-I' to the 'quasi-other' in our interaction with technologies, with the 'absent presence' of background and horizontal relations on the intentional continuum. Technologically mediated experience yields new knowledge. Ihde's

examination of what technological instruments/artefacts do, which Ihde calls ‘instrumental intentionalities’<sup>113</sup> (*TP:77*), is done by applying the ‘shapes of intentionality’ (experience)<sup>114</sup> as extended by means of instruments.

Instruments can reveal different aspects of the world that are not accessible to human perception in a non-mediated manner (for example, the use of infrared imaging and other technologies used in fields such as the medical field, the military and oceanography to name but a few). Technology in this case reveals a different kind of ‘reality’ to be interpreted, which can only be achieved by means of the specific technological instruments or artefacts.

Whether it is implied or not, Ihde’s take on mediation is as follows. Firstly, mediation may dictate human praxis in terms of the artefact’s specific ‘protocol’. Operating the machine/device presupposes some acquired skill or habit<sup>115</sup> to apply the machine optimally for its purpose. Secondly, mediation facilitates a ‘technological telos’ (*TP:77*), although the outcome of such a telos may be more radical or ‘acute’ than mere perceptual changes (think about Chernobyl). Thirdly, this mediation may cause radical changes to our perception and may result in new structures of experience of the world (even if the instrument is partially ‘transparent’ in the embodiment relation). Fourthly, mediation is, in many cases, literally a material ‘intermediary’ or a ‘situational in-between’ the human

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<sup>113</sup> Miller’s (2005:61-64) explication of technology and human ‘collective intentionality’ is, in my opinion, a better phenomenological explication of what Ihde is saying when he uses the term ‘instrumental intentionality’. Ihde ‘expands’ hermeneutics to include technology and the natural sciences. Therefore, I think that ‘intentionality’ as the pre-reflective lived experience in the world cannot ‘expand’ to technology; rather, human intentionality can be mediated by technology or ‘arch across’ technology as a fundamental being-in-the world. Therefore, ‘technological intentionality’ appears to be meaningless.

I believe we are talking here of three different aspects of intentionality. Firstly, intentionality as described by Husserl and Merleau-Ponty as the pre-reflective intentionality of the lived body, the intentionality that supposes being-in-the-world. Intentionality also is consciousness directed at something. Secondly, Merleau-Ponty’s notion of the ‘intentional arc’ is that which subtends our past, present and future, our perceptual life and our life of dreams and desires (our life of consciousness). Intentionality is contingent within a spatio-temporal context. Thirdly, what Ihde may imply with intentionality is that it is technologically embodied within the frameworks of cultural and the individual perception. The main difference here between Merleau-Ponty’s and Ihde’s notions of intentionality is that of pre-reflective ‘being-in-the world’ (Merleau-Ponty) and reflective mediated engagement with the world (Ihde).

<sup>114</sup> If one considers the notion that technology extends aspects of our human body in embodiment relations - that, in hermeneutic relations the locus of our intentional perception terminates beyond the artefact in the world, I find Ihde’s notion of ‘instrumental intentionalities’ an anomaly, in that the focus is on the relational structures of humans and technology. Heidegger already implies that tools or technological artefacts belong to the specific ‘work’ contexts in which they function optimally and according to the intention designed by humans.

<sup>115</sup> The more skilled one becomes in using or applying a technological instrument or artefact, the higher the chances are that the artefact will become transparent and incorporated into the body *schema*; Merleau-Ponty shows us that habit acquisition alters the body *schema* (*PP:143-145*).

being and the world. Fifthly, mediation can be one- or multi-directional as well as referential, as shown above.

An aspect that I believe to be lacking in Ihde's work is comment on the role that ethics plays in his analyses of technics and praxis. Therefore I want to add another aspect of mediation insofar as intentional action is involved. The 'operator' or 'user' of the device or machine or system may not be aware of the implications of his or her actions, but ultimately, whether mediation is implied or not, mediation in Ihde's philosophy presupposes human ethical praxis (and here I refer to a Kantian deontology). This aspect of Ihde's philosophy of technology requires future research.

Ihde gives a typical example of instrumental mediation, namely that of writing and technology (*BT:95-99*), in which he firstly traces a symmetrical interaction between the human and a non-human (the quill or pen): the human writes letters on a piece of paper in a pre-modern setting; he acts through the pen (the pen is then the mediating technology). The pen modifies and mediates his or her bodily action of producing the letters and *vice versa*: 'Symmetrically, the pen is modified.... [as] it flexes and...wears out...' (*BT:96*). A typewriter allows two hands to shape the flow of words 'through the embodiment of body-machine-paper' (in its context) and therefore becomes a 'socio-technical assemblage of humans and nonhumans, in which different writing instruments contribute to thought', which shows interactivity in another way from the quill or pen (*BT:98*).

With regard to contemporary contexts of humans and non-human interaction, Ihde argues that the agencies (human - computer - Internet) form a system in which the action of writing takes place (*BT:99*). In this interaction, 'the objects (nonhumans) in such interactions modify the humans...' (*BT:100*), however, the different degrees and different kinds of symmetries remain. What Ihde is trying to say, I believe, is that while technology progressed over time, humans have been the invariant agent (albeit acquiring different techniques,<sup>116</sup>) in the relational system, but although transformations have taken place in these relations between human and non-humans, the symmetries in these relations stay more or less apparent. Viewed in the light of a prevailing symmetry in the relations between humans and technology, in which neither the actor nor the actant dominates or is dominated by the other, Ihde throws some light on technology and our relations to it in our lifeworld, refuting dystopian views.

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<sup>116</sup> Cf. Wolff, 2009a, on 'technicity' and 'habitus'.



In the following examples of views on the world and the built environment that marked the ‘Modern Movement’ in architecture, I look at the account by David Leatherbarrow (an architectural critic and theorist) of the status of contemporary technology in the building industry, at Lewis Mumford’s (historicist) account of buildings as technological artefacts and at the view held by Gustav Schlemmer (a first generation teacher at the Bauhaus in the 1920s in Germany) of built space and its relation to humans. In these accounts we can clearly see that Merleau-Ponty and Ihde’s philosophies do inform and supplement these theories in the architectural world.

### **3.4 Buildings, building systems and elements as technological artefacts**

#### **3.4.1 David Leatherbarrow**

In the light of the theory of Western architecture, the architect David Leatherbarrow (2000:279-280) defines what he considers to be the essential characteristics of technological objects. Firstly, a technical object manufactured in a shop is autonomous in the sense that the manufacturer does not have one particular *topological* milieu in mind when the object is designed and manufactured. However, the technical object belongs to a specific type of milieu, or ‘region’ that forms the network of interconnections which the technical object is part of.

Secondly, this network circumscribes a system of interconnected elements. According to Leatherbarrow (2000:279), the origin and development of the technical object ‘presumes the elaboration of relationships among other technical parts’, for instance, interlocking gears ‘each depending on the other’.<sup>117</sup> The interdependence between the elements for their optimal functioning is true for architectural construction, computer networks or any technical system (Leatherbarrow, 2000:280). We can conceive of the technical system or technical object as a figure on a background or as a *Gestalt* within a larger functional field or horizon.

I do not believe it is that simple to define the specific kinds of milieus or ‘regions’ within which these technical systems are inserted and function. In fact, the primary or determining factors in the design and production of technology (or the technical system or

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<sup>117</sup> This gear metaphor reminds us of Merleau-Ponty’s way of showing us how the body and world are related, as well as the unity of the psychic and physical in our being-in-the-world. Leatherbarrow (2000:279) alludes to this metaphor as it was used in some instances during the nineteenth and twentieth century that (in a Romantic sense) referred to the relation between civilization and culture as an ‘organic unity’. Frank Lloyd Wright’s lecture on art in the machine age was such an instance.

object) can be politics, economy, culture, society, geography, religion or various combinations of these factors. Sometimes these factors are difficult to predict and therefore the kinds of 'region' for the applications of systems may proliferate and may result in specific technologies that defy Leatherbarrow's notions as described below.

Leatherbarrow (2000) adds a third aspect to his definition of a technical object, namely a-temporality, which completely contradicts Merleau-Ponty and Ihde's conception of facticity and worldliness. Leatherbarrow (2000:280) argues that the character of the relationships within the technical system is stable, at least for as long as the system is in a state of equilibrium in terms of its technical evolution. However, he believes that 'a-temporality' is another aspect of the system's non-territoriality, 'insofar as every location is subject to change by virtue of the alterations that define the natural world and the world of human choices' (Leatherbarrow, 2000:281).

The stability within a technical system applies only under certain conditions. The opposite (instability) also applies to technical objects, for instance, the chemical changes that occur in technical objects (Wolff, 2009c): batteries go flat, light bulbs' filaments emit light only for a certain amount of hours. A vast range of technical objects in a building need constant maintenance (Wolff, 2009c), such as waterproofing, painting, replacing washers in taps, removing dust and dirt from carpets to prevent wear and tear, or cleaning windows regularly so that they remain transparent. Continued 'tending to' technical artefacts is important: freshly cast concrete, for instance, needs curing procedures on a daily basis for a month, while the chemical changes in the concrete structure continue for up to fifty years.

Even the differential interaction between materials by virtue of chemical changes over time proves that technical objects are temporal and territorial. Ground morphology and geological conditions determine the different types of foundation system. There is bi-metallic corrosion between galvanised steel and copper water pipes. Clay bricks and concrete and steel display differential amounts of thermal movement. These are but a few instances that show the shortcomings in Leatherbarrow's definition.

If I replace Leatherbarrow's (2000) notion of a-temporality and non-territoriality with that of the standardization and universality of technical objects that are independent of the place and time of their application, we can confront real situations in the lifeworld. Firstly, standardized technical objects contribute to the lack of uniqueness or identity that might

distinguish my dwelling from my neighbours' home. Secondly, standardized building elements and systems may be highly inappropriate in different cultural and religious contexts.

The positive side is that standardized building elements and systems give some form of predictability for as long as the technical system is stable, for instance, standard steel- or timber-framed windows that remain unaltered for as long as glass in its current form is used in the building industry. This implies that, unless newer materials and their concomitant technics, say windows, prove to be an improvement on many levels (such as availability, cost, durability, better thermal performance, a more contemporary aesthetic), the current technology will remain in use.

Since industry is profit-driven, profit often plays a dominant role in the building industry. The developers and manufacturers of standardized technical artefacts, as well as the building contractors, profit most: contractors gain economically from the standardized technics that typify mass-produced systems, thereby saving on labour costs, compared to the more labour-intensive building techniques required for custom-made context-specific applications. In many instances, however, custom-made items would contribute to far better living conditions for the inhabitants of a building.

However, standardization of artefacts and techniques in most Western developing countries is the only way in which institutions can afford to provide housing for low-income and homeless citizens. Institutions often resist new construction methods and materials due to initial higher costs. Longer construction periods incur higher labour costs, but only until builders have acquired new skills and competence in working with new building systems.

I agree the fourth aspect of Leatherbarrow's (2000:281) definition of a technical object, which states that technical objects and systems are regularly 'updated' and improved on because of what we learn from their specific applications. Specific situations and contexts endow the object with its potential for future development or changes. Sometimes, the destabilization of a technical object is necessary, such as alterations and additions to an existing building, insofar as the inhabitants' needs and desires change over time. The specific physical context also adds the technical object's significance, so that when I perceive a building, it is meaningful, in that history is inscribed in the object by virtue of its specific setting.



However, Leatherbarrow's abstraction of the object from the lifeworld, in his claim that it is a-contextual or a-temporal, cannot apply, since one cannot but conceive of or perceive any physical object outside the world of time and space. The object is always in the world, even if I have not yet experienced it: it exists inasmuch as I am open to the world, and is potentially within my perceptual reach through my body's notion of 'I can'.

Next, I look at another prominent theorist in Western architectural thought, Lewis Mumford.

### 3.4.2 Lewis Mumford

In his explication of different types of 'technology-as-object[s]', Lewis Mumford, one of the most prominent intellectual historians whose texts are widely read by those interested in the philosophy of technology (*PT:96*), classifies built spaces as belonging to the category of 'structures'. He defines 'structures' as '[h]ouses and other stationary artefacts within which human activities take place' (cf. Mitcham, 1994:162). Mumford might have allowed for different interpretations of this definition. In the context of his definition, the words 'stationary artefacts' can be interpreted in terms of time, material and location. A 'structure' may consist of a sub-structure (foundations) and super-structure (floors, walls, columns, roofs) of long life-cycle materials such as concrete, steel, masonry and stone and they may therefore be immovable or 'permanent'.

Writing from a Western architectural historical point of view, both Leatherbarrow and Mumford implicitly exclude the following aspects of technological objects, such as built structures: informal settlements, vernacular or non-designed dwelling spaces and non-Western cultural modes of inhabiting built space. Let us therefore consider for a moment an informal 'shack' in South Africa or 'box houses' in Rio de Janeiro. They are 'permanent' structures (albeit 're-moveable' by virtue of their 'illegal' geographic locations, formations, construction methods and materials). For all legal, political and institutional purposes, these dwellings are regarded as strictly temporary. No formal documentation of these shacks exist on maps or local municipal drawings. Even less is an informal shack settlement regarded as architecture.

A structure can also be 'stationary' for short durations. These structures are easily assembled and dismantled to be transported elsewhere. The nomads' tents in the Sahara, mobile homes in America, inflatable structures, caravans and camping gear are all transportable. The materials are often durable (long life-cycle), but the structure is only

temporarily used in a given location. Mumford's definition excludes these structures, as well as inhabitable structures that are not stationary in use, for instance, floating reed platforms with reed houses in Indonesia, and even houseboats in China. In other words, Mumford's category of 'structures' as technological objects should read as follows: 'built spaces for human inhabiting, regardless of their materiality, duration and geological (human-made or natural) setting'.

All human-made things (and that therefore includes built spaces) are technological artefacts, according to Merleau-Ponty and Ihde. However, reflecting on those built spaces in my neighbourhood as part of my daily experiences and lifeworld, I would argue that they have become a place for me where other people's lives and my life (with our projects, dreams and desires) intersect and unfold - the technicity of the artefacts has become personalised, meaningful and significant for me.

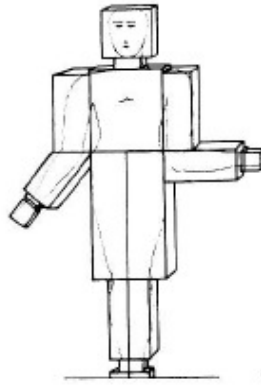
### **3.4.3 The technological artefact as a metaphor for culture as a projection around the natural world**

The human body in relation to space-making was extensively explored by Oskar Schlemmer, a teacher in the early twentieth century at Walter Gropius's Bauhaus. Schlemmer regarded architectural space as the transformed body rather than as a container for the body (Feuerstein, 2002:228-229). He promoted an 'anthropomorphic' theory of costume design that was based on a male 'form' (which he called *der Mensch*), designed as the blueprint for bodily proportions used in the school (Feuerstein, 2002:229). For Schlemmer, the body, costume space and architecture were 'dynamic and inextricably linked' (Feuerstein, 2002:229). He believed that his theory was an original theory of human types. However, for Schlemmer, human types were artificial constructs derived from the nature of humans and their experiences.

In Merleau-Ponty's terms, he constructed a scientific theory the origins of which lie in the lifeworld. Imagining and designing all possible formations of human-world interactions in terms of human postures and movement, Schlemmer constructed the 'art figure' that emerged from the 'transfiguration of the human form' (Feuerstein, 2002:230-231). Schlemmer believed that his costumes were a figural language that signified four distinct ideas he had about the body. All four were based on the interaction of 'two acts' - body and costume - which shape certain actions. The costume is the exterior layer that conceals the 'natural' body. Schlemmer designed these four costumes in 1924, calling them 'Ambulant

Architecture’, ‘Marionette’, ‘Technical organism’ and ‘Dematerialization’ (Feuerstein, 2002:231).

The costume ‘Ambulant Architecture’ (*Wandelnde Architektur*), is a ‘spatial-cubistic construction’ of the ‘laws of the surrounding cubical space....transferred to the human shape’ (Feuerstein, 2002:231). We can read different meanings into these creations of Schlemmer’s. ‘Ambulant Architecture’ could represent the many forms and characters of contemporary life: I see it as the representation of technological determinism, or at least that of technical rationalization. Technology is a projection of a cultural world around the human body (this resonates with Merleau-Ponty’s view), but, in this case, the body becomes embodied in technology. It is at the mercy of super-imposed technical control.



**Figure 3.1: Ambulant Architecture**

Source: Feuerstein (2002:231)

‘Marionette’ (*die Gliederpup*) consists of circles and curves and represents ‘the functional laws of the human body in their relationship to space’ by means of the ‘egg shape of the head, club shape of the arms and legs, and the ball shape of the joints’ (Feuerstein, 2002:231). Marionette’s design was derived from Schlemmer’s study of joints in the human body. We can interpret this as an analogy to Ihde and Merleau-Ponty’s notions of the way that we ‘act’ on the world through embodied artefacts, and the enhancement of bodily faculties by means of embodied technology, which is shown in the ‘club’ shapes of the arms and legs in Schlemmer’s drawing.



Figure 3.2: Marionette Source: Feuerstein (2002:232)

‘Technical Organism’ (*ein technischer Organismus*) reveals the ‘laws of motion of the human body in space’ (Feuerstein, 2002:231). Schlemmer refers to motions such as direction, rotation and the intersection of space which he expresses as ‘the spinning top, disks, snail and spiral’ as a ‘composite of moving parts [that creates] a curvilinear and orbiting space’ (Feuerstein, 2002:231).

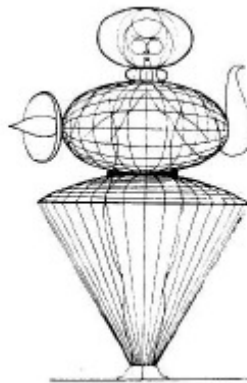


Figure 3.3: Technical Organism Source: Feuerstein (2002:231)

Schlemmer’s costume ‘Dematerialization’ (*die Zeichen im Menschen Entmaterialisierung*) represents the metaphysical forms of expression between the outer body and the natural body. The governing ‘laws’ are those of balance and imbalance, standing and leaping while spinning around a vertical axis.



Figure 3.4: Dematerialization Source: Feuerstein (2002:232)

The costumes represent a theatrical character without negating the underlying human body. In his theory of costume, Schlemmer lays down the principles of the human body in his four types, as the amplification of ‘the very notion of the human being, re-characterizing the body as a space-making being’ (Feuerstein, 2002:231).

Schlemmer describes the design process in formalising these costumes as the processes of ‘hollowing out’ and ‘piecing together’ spaces which the human body inhabits, while enacting the laws or ‘statutes’ that the costume type implies. Thus, each of Schlemmer’s theoretical ‘costumes’ results in a perceivable space created by the possible movements allowed in and by means of these costumes.

For me, Schlemmer’s ideas are a visual representation of the combination of Merleau-Ponty and Ihde’s ideas. On the one hand, there is Merleau-Ponty’s notion of the body’s motility and spatiality, as well as his theory of incorporating instruments into the body *schema*. Ultimately, these types represent what Merleau-Ponty writes on the body as an inhabitant of space and the body’s intentional motor and perceptual skills in its dialectical interrelation with the world. On the other hand, Schlemmer’s costume types represent Ihde’s notions of human-technology relations that mediate our perception and experience of the world, while our mediated perceptions and experiences of the world are reflexive in that it reveals new ways for understanding ourselves.

These ‘models’ can be tested in terms of Ihde’s structural human-technical relations and Merleau-Ponty’s notions of the body *schema*, motility and spatial perception. The ‘Mannequin’ costume recedes into the body’s spatiality, while extending or enlarging some of the body’s capacities in its interaction with the world. In this sense, it resonates with Merleau-Ponty’s notion of embodied instruments, which is possible through habit and skill acquisition, while constituting new ways of engaging the world.

The actor/person wearing the costume is in a hermeneutic relation to the costume, as the person visually interprets the costume shapes as an indicator of the person’s possible movements on the dance floor. The person can also interpret the costume’s restrictions and allowance for potential movements in the act on stage (as metaphorical world) through his or her tactile perception of the costume. The person is also in an alterity relation with the costume when the person’s arm movement within the costume is restricted by a reactionary force, by ‘Ambulant Architecture’s’ frame, while doing the act on stage. The

human body and the stage (which provides the artificial ambient cocoon in which the costumed person performs) are involved in a background relation.

When Ihde directs his analysis of horizontal relations towards the notion of the modified human body; even human cyborg, he refers to biotechnology (TL:113-115). In these structural human-technology relations, the boundaries between the natural and the artificial become blurred. In Schlemmer's models, we deal with the notion of 'artificial prosthesis', albeit in an indirect manner.

### 3.5 The lifeworld and perception

Ihde's version of the lifeworld is close to that of Habermas, in the sense that both see the lifeworld as a centre for 'interpretive schemata' (Welton, 1997:742-743). For Ihde, lifeworld consists of structural styles of embodiment relations between humans and technology in our mediated experience of our environment (Welton, 1997:741). 'Instead of reducing technological artefacts to the technological form of world-disclosure that makes them possible, [Ihde] asks what form of world-disclosure is *made possible by* technological artefacts' (Verbeek, 2001:122). While technology transforms our experience of our lifeworlds, it simultaneously reveals the world in a transformed manner. My proposed revision to the intentionality structure (I proposed Human  $\leftrightarrow$  technological world) is plausible if one looks at it in light of Ihde's concluding words in his latest book (BT:138): 'We remain bodies in technology.'

Different technologies may mediate completely different perceptions in different lifeworlds, such as (Ihde's example of) the Western navigational system and the South Pacific navigational techniques<sup>118</sup> (TL:126). Similarly, the use of image technologies and computer software research and development in spatial analysis and geographic information of almost all kinds has proliferated since the development of Virtual Reality and more recently 'Second Life' and 'Half-Life' virtual worlds. Current spatial research in imaging technologies applies 'scale-free' methods varying from statistics, based on geographic information to neural-network analyses to geographic information systems. These interdisciplinary methods are applied to networks from brains to cities, creating

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<sup>118</sup> Lévy-Bruhl distinguishes between 'primitive thought' and 'rational thought', claiming that 'primitive' thought has a logical system that differs from that of formal logic. The 'laws of thought' in formal logic are non-contradiction (A cannot both be A and non-A), the excluded middle (something is either A or non-A) and identity (A = A) (Dusek, 2006:165). 'Primitive thought' identifies opposites and identifies the part with the whole and identifies a person with a totem or an object. Lévy-Bruhl suggests that primitive space is not organised like the space of geometry (Dusek, 2006:165), which Ihde explicates in the Western and non-Western techniques of navigation that were informed by and in turn informed different technologies.

models for many things, ranging from air-traffic control systems to pre-manufactured systems of ecology.<sup>119</sup>

Models of ‘fractal geometry’ are applied to project future urban growth patterns and human behaviour. Fractal geometry has long been appropriated in open systems analyses in which the laws of thermodynamics have been applied in the social sciences.<sup>120</sup> The virtual ‘disappearance’ of size, a referential scale and distance (the underscoring of lived spatial experience) produces a huge gap between real life and virtual experience, which automatically alters our perception of the world, as well as our conception of lived space. Time and distance seem to be erased so that experience seems instantaneous and immediate.<sup>121</sup>

These techniques of measuring topologies, spatial distributions and geographical information analyses are, in my view, applied to derive demographic and other taxonomic data for political and economic ‘power’ purposes. They may also assist in establishing standards and norms, since the current availability of such image-based information systems provides opportunities for bio-technological praxes. I would like to call this category of imaging techniques and models of information access ‘geo-technology’, which can be divided into sub-categories such as ‘taxonomy-technologies’, ‘eco-technologies’ and ‘topographic-technologies’. This field needs further study to determine how Ihde’s philosophy of technology and Merleau-Ponty’s phenomenological method and later ontology of the ‘flesh’ can throw new light on these technologically mediated lifeworld phenomena.

An important aspect that I find to be lacking in Ihde’s writing is an explication of different production practices with or by means of technologies, which are equally explicable in terms of his notion of micro- and macro-perceptions. In terms of this study, the act of building, the human and technological processes and actions involved in constructing our ‘settings’ for inhabitation, are culturally and bodily informed. The act of building is a complex of embodied, hermeneutic and alterity human-technical relations and the combinations of these technical relations vary between different trades. However, all

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<sup>119</sup> Cf. CASA (Centre for Advanced Spatial Analysis) current research.  
<http://www.casa.ucl.ac.uk/projects/projectDetail.asp?ID=63>.

<sup>120</sup> The notion of applying the second law of thermodynamics to the social sciences, as explicated by Illya Prigogine and others, in order to determine internal and external factors that influence social behaviour and the possibilities of manipulating these factors to such an extent that ‘bifurcation’ occurs from which new orders emerge, was explicated in my architectural studies (Viljoen, 1990).

<sup>121</sup> Ihde alludes to this in (*TP*:90;) describing ‘objective’ distance that becomes relative in the ‘quasi-immediacy of the television’.

these trades form part of the whole that we understand as ‘building’. I believe an explication of similar examples will throw new light on our direct and indirect relations with technology.

Perception and the experience of built space as, well as the technologies appropriated in constructing practices in making places, are culturally embedded. From the technologically mediated lifeworld phenomena mentioned above, the question arises whether Ihde’s universal model of human-technical relations distinguishes between different kinds of technics - to be more precise, between what we know as ‘hi-tech’ and ‘lo-tech’. It should be borne in mind that technics, according to Wolff (2009a:16) has a threefold reference, namely, firstly, its internal reference, which is its function, secondly, its uses as technical artefact, which may be variable in different cultures and, thirdly, its symbolic reference. With this in mind, I apply Ihde’s model by drawing on specific experiences and imaginary variations thereof from my lifeworld in the matrix below.



human-technology relations		artefact/technology		use / function	transparency	opacity: positive /negative	perceptual field
structural variation embodiment relations	my apartment	digital alarm clock	office window				
			telephone				
			medical practices				
hermeneutic relations				dwelling	inhabiting: leading my everyday life	Positive: I am protected while thunderstorm rages	micro-perception (1)
				communication	conversation; device in working order	Negative: electrical interference with line	1
				communication	(positive opacity = line is clear, digits work)	Negative: device digits malfunctioning	1
				communication			macro-perception(3)
				clock and alarm	alarm goes off on time	Negative: power failure means I will be late	1
				neighbourhood: dwelling context	(positive) opacity means it is working well	Positive: 'reading' what time it is	micro-to macro- 1to3
				status symbol: individualistic style		symbol of belongingness to a social environment	2
alterity relations				identification		symbol of belongingness to a socio-culture	2
				connectedness		identify position from outside building; ranking symbol	2
						Negative: Inaccessible to all-High Cost of service	macro-perception(3)
				setting alarm clock	saves set alarm time in 'memory'	Negative: not going off on time / malfunction	1
				blood dialysis / transfusion	replacing organ function / life saving	Positive: alarm wakes me up	1
				interactive banking transactions	time- and effort saving operation;	culturally determined	1to3
				equipment in apartment: security	time planning; scheduling (time awareness)	Negative: slow or no response; system down	1
background relations				view, natural light	clear clean glazing, no visual obstructions	Positive: interaction - activation & de-activation	1
				socio-economic/ class environment	broken pane cold weather, or blinded by reflection		1
				urban context	symbol of belongingness to a social environment		2
horizontal relations				chemical medication (e.g. pills)	symbol of belongingness to a socio-culture		3
				accepted method / cure	negative side-effects/ ineffective/ substance abuse		1
				western medical practices	culturally determined, e.g. traditional healing practices		2
				effective' results	Pos. + Neg. e.g. birth control = biotechnology	macro-perception	3



### 3.6 Conclusion

Let us take stock of what we learned in this chapter. Ihde, one of the leading contemporary philosophers of technology in North America, shows us that technology cannot be regarded as a neutral or autonomous entity, because it is always, albeit to different degrees, related to human beings within the context of our lifeworld. Therefore Ihde approaches technology and science from a praxis philosophical stance, building on the philosophy of Heidegger and Husserl; firstly, to establish at the 'basis' of his explications the intentional character of our being-in-the-world and, secondly, to position technology within that intentional interrelation.

Ihde's main enquiry is the nature of the mediating role that technology plays in the human - world relation and to determine what types of lifeworlds are made possible by means of technologies and how technology mediates or transforms our perception of our lifeworld.

It is important to note here that Ihde does not follow Heidegger's ontology of technology, namely the notion that 'enframing' provides the only way to achieve this modern epoch's 'unconcealment', by means of 'ordering' or 'summoning' of the world as the 'standing reserve' to be manipulated (cf. Verbeek, 2000:284-286). Instead, Ihde adheres to an ontic level in his explication of technology and its possibilities concerning the lifeworld, in other words, by examining technological artefacts and the way they 'shape' or mediate our access to reality. These 'ways of access' to reality (which Ihde focuses on) is a reduced way of revealing (Verbeek, 2000:288,289).

The 'ways of access' or mediation by means of technology also differ in the way that we engage with technology in a relational way. Ihde examines these different ways of access to reality that technology makes possible as variations of structural relations between humans and machines in terms of the Husserl-Heidegger intentionality correlation. The human - machine relation could be an embodiment relation, in which the artefact or machine is incorporated into the body *schema*, while extending one or more of the body's senses through which the world is directly perceived. The invariant aspects of the structure of the embodiment relation are that the artefact becomes partially transparent, that my experience is transformed in this relation and that, as Ihde says, a simultaneous sensory-extension-reduction relation occurs by means of the technology in use.

The second variation in human-machine relations is hermeneutic relations that require an interpretation by the person within this relation. Hermeneutics in philosophy initially

applied to the social sciences, in the field of theological textual interpretation. On the basis of Heidegger's notion of hermeneutics, Ihde explicated his conception of hermeneutics in detail by 'expanding' hermeneutics to include the domains of technology and of the natural sciences. Ihde's account of a technical hermeneutic relation shows that the perception ends with the machine as the machine interprets some aspect of the world, which is then relayed in some form (as text, symbols or codes).

In turn, the user has to interpret the data in order to understand that aspect of the 'real' world which the machine interprets. The person's experience is of the machine itself. The complexity of these relations increases in Ihde's explications, especially in *TL* and *BT*, where he shows how, with the increasing complexities in technological advances, the boundaries between humans and 'non-humans' or the 'other' (in alterity relations in which we interact with machines) become blurred by the use of metaphor.

In all technical relations, as Ihde shows us, we only become aware of a specific machine or instrument when it malfunctions, and is thus perceived as a present 'absence'. In a functioning state, technology exists on the fringes of our awareness as an 'absent' presence, and we have no direct contact or interaction with these background technologies. Lastly, Ihde describes horizontal phenomena in which he includes biotechnologies in their various functions and forms, which do have an influence on our perception of our lifeworld, in addition to being a determining factor in the transforming our lifeworld. In many cases, horizontal phenomena can or may be 'repositioned' within Ihde's structural human-machine relations when the technologies are differentiated into conventional artefacts and imitation technologies.

We have also learned that Ihde appropriated a different method from the European phenomenological tradition in his analyses and explications. Ihde's ideas are a hybrid of pragmatism, phenomenology and hermeneutics in which the concept of 'embodiment' is used to replace 'subjectivity' (and thereby avoid any concomitant negative associations with the term 'subjectivity'). His concept of embodiment includes the Foucauldian notion of objectified human bodies and the role politics and technology play in the techniques of normalizing bodies. (I expand on this aspect in the next chapter.) In his first book, Ihde already alludes to two 'levels' of embodied perception which he distinguishes as 'micro- and macroperception' by means of the correlating 'body one' and 'body two'. Some technological praxis has been transferred through generations and cultures and has become embedded in our lifeworld, for example, geometry in Western thought.



I have commented throughout this chapter on similarities and differences between the phenomenological approaches used by Ihde and Merleau-Ponty to ascertain their views of the interrelations between human beings and their technologically or culturally textured lifeworlds. Ihde has expanded on Merleau-Ponty's notions of embodiment relations with artefacts and habit acquisition and on his ideas about how our perception and experience of our lifeworld are changed by means of technology. My interpretation of Ihde's philosophy is that he seems to be ambivalent and contradictory at times, and on the other hand, Ihde's anecdotal style and the way he communicates the principle concepts are clear and easily accessible. His style could be ascribed to his various and hybrid philosophical methods of enquiry, characteristic of our post-modern philosophical epoch. Ultimately, Ihde believes that we are bodies in technology: how would Galileo's scientific discoveries ever been possible without the instruments Galileo used?

My question, however, is how science's instruments (Galileo's telescope) could function in a meaningful way without their being related to in a *skilful* manner (by Galileo or his apprentices)? In the acquisition of skills and in the lived body's gearing and opening toward the world lies a deeper fundamental intentionality - existence - which is the manifestation of an intertwining between myself, others and the world which is meaningful. At the level of pre-reflective experience, embodied intentional consciousness is the power which enables the projection of various possible worlds and experiences around us. Creativity, invention and imagination are all made possible by means of my body's symbolic and objective functions, which are underpinned by a certain bodily 'understanding' of the world.

Technology is a medium by means of which we understand and get to know about our world; individuals and societies are the collective medium through which these technologies and knowledge are transmitted through time and space. Humans and our world are intertwined and are of the same 'flesh' that shows the mutual implication of our creations and the lifeworld which is made possible by means of it. The examples from the theory of architecture and building practices from different historical, geographic and cultural points of view show, firstly, that Merleau-Ponty and Ihde inform and add to the views of theorists such as Semper and Leatherburrow, and furthermore, Merleau-Ponty's notion of the structures of the body-subject (in perception and experience) and its relation with the inter-subjective lifeworld remain unchanged. Ihde's structure of human technical relations in experiencing the world also remains unchanged through time and place and



applicable to informing the theory and practice of architecture. In the next chapter, I relate the philosophies of Merleau-Ponty and Don Ihde, in a comparative manner, to the lived experience of built space.

## Chapter 4: Built space - ‘Inhabiting our world’

### 4.1 Introduction

Apart from the explicit and sometimes nuanced differences between Ihde and Merleau-Ponty’s philosophies alluded to in the previous chapters, there are other ways to compare and relate their work in terms of the problem of human beings as corporeal inhabitants of built space. We can focus on the complementarities in their work, and ask ourselves in what ways their philosophies are compatible or supplementary, even whether possible shortcomings in one philosopher’s work can be extended by the other’s work. Furthermore, each philosopher focuses on different aspects of the problem. By means of a synthesis we can reveal what Merleau-Ponty and Ihde’s contributions are to this study and develop a theory of the body as inhabitant of built space. Lastly, we can also determine the relevance of the theory to education in architecture.

In this chapter, I divide the problem into three parts (‘the body’, ‘inhabiting’ and ‘built space’). First, I describe Merleau-Ponty’s contributions on ‘the body’ as set out in the first part of *PP*. With ‘Inhabiting’, I continue with Merleau-Ponty’s contributions as set out mainly in the last section of Part 1 of *PP* and his explication of perception in Part 2 of *PP*, as well as Don Ihde’s explications of human-technology relations as a human construction layered over the natural body-world structure of interrelation. ‘Built space’ is explicated as a technological artefact. In that section, I focus mainly on Don Ihde’s contributions. I synthesize the three parts into a theory with my own contribution.

Let us return to the main problem of this study. There is a tension between the theoretical constructs of architecture and its practice in the lifeworld. I set out to discover the relations between the body-subject and the lifeworld, and how the body inhabits built space by studying Merleau-Ponty’s philosophy of the body and Ihde’s philosophy of technology. Ultimately, I set out to determine the ways in which their philosophies may throw new light on our experience of built space. Phenomenology as a method enables us to access and understand this problem, as argued below.



## 4.2 The phenomenological method

Phenomenology is the study of essences - a quest for definitions of, for instance, the essence of the body, the essence of perception or the essence of built space. Moreover, according to Merleau-Ponty, phenomenology is also the philosophy that puts the essences back into existence (*PP*:vii; see Section 2.2.2§3). Phenomenology is a 'practice' rather than a fixed system to examine 'things' or our relation to 'things'; moreover, it enables us to examine the relation between consciousness and nature.

Husserl set out to establish a way in which philosophy could be practiced as a 'rigorous science' (see Section 1.4.1.1 §2 of the current study). In establishing the phenomenological method, Husserl was certain that we could 'return to the things themselves'. Phenomenology proposes that to be conscious means that consciousness is always directed at something; consciousness is intentional. Secondly, to 'do' phenomenology, we should 'suspend' our pre-conceptions (and naïve 'taken for granted' views) of the evidence of the natural world. By applying the methods of phenomenological reduction and through reflection, we could describe the essential structures of the object that we intend (*noema*) and our intending consciousness (*noesis*).

This aspect of Husserl's phenomenology was criticised as being transcendental and idealistic. However, Merleau-Ponty has shown that phenomenological reduction cannot divorce us from our facticity: if we were to return to 'the things themselves' (as Husserl set out as the aim of the phenomenological method), according to Merleau-Ponty, the *cogito* is not to be transparent nor can it have a view of the world 'from above', for we cannot break all ties with the world. Therefore, a complete phenomenological and eidetic reduction is impossible (see Section 2.2.2.1 §2). Thus, consciousness is incarnated; a *tacit cogito*, so that our consciousness is a 'presence of ourselves to ourselves' (see Section 2.2.2.2 §8), before any philosophy begins. Our body is thus incarnated consciousness that is (pre-reflectively) intentionally directed and open to the world; beneath our personal life, our body 'cleaves' to the general world. Intentionality is the core concept in phenomenology that helps us understand the relation between the human being and the world as an inextricable unity (see Section 2.3.2 §8).

Furthermore, it is only possible on the condition of the *tacit cogito* (one's *cogito* that reveals one in a situation) that transcendental subjectivity can be an inter-subjectivity (*PP*:xiii). Thus, phenomenology, through the reduction, reveals our relationship with others



and with the world. Because we cannot know our existence as existence while we are ‘busy’ existing, ‘we need to proceed by way of essences’ (*PP*:xiv). Through the eidetic reduction, the intentional object’s ‘essence’ is revealed, which through reflection allows one (by means of variations and imagination) to relate those essences. Essences are not ends in themselves, but rather ‘tools’ (through the reduction) that require a ‘slackening’ of our ‘intentional threads which attach us to the world’ (see Section 2.2.2.1 §2).

It is in the reduction, as Merleau-Ponty sees it, that our immersion in the world (which we take for granted) is ‘disrupted’ so that the philosopher can stand in ‘wonder’ in facing the world; so that the world’s paradoxes and ambiguities and our own can come to our notice (*PP*:xiii). Merleau-Ponty wrote that the work of the artist performs something analogous to the reduction (see Section 2.6. §1-3), insofar as the vision of the painter is a ‘constant re-birth’ that shows us what ‘profane vision’ overlooks (*PrP*:166). It is after the reduction that we can describe that which is shown to us exactly as it appears. We must regard the reflective experience as a ‘creative operation’ which participates in the facticity of that experience (see Section 2.3.3.3 §3ff). Merleau-Ponty argues that it is for this reason that phenomenology talks about a ‘transcendental *field*’: the term indicates that reflection never holds the whole world before its gaze, nor is its view ever other than partial and of limited power. ‘It is also why phenomenology is phenomenology, that is, a study of the *advent* of being into consciousness, instead of presuming its possibility as given in advance...’ (*PP*:61; see Section 2.3.3.3 §3ff). ‘Reflection can never make me stop seeing [the sun] “rise” and “set”, or thinking with the cultural apparatus with which my education, my previous efforts, my personal history, have provided me’ (*PP*:61).

Merleau-Ponty’s rigorous and comprehensive studies and texts on the body and perception are a major contribution to the phenomenological tradition. He builds onto Husserl’s phenomenology and views phenomenology as that which does not ‘remove’ us from the lifeworld through the reduction; rather, there is a reduction to natural life and the lifeworld (*SEP*, 2004:9). It is thus by way of phenomenology that we can understand the human body and human experiences in the world.

### 4.3 The body

What did Merleau-Ponty imply when he wrote ‘I am my world’? Primarily, he held that the human body and world are irreducibly intertwined; that ‘being-in-the-world’ and the body-subject reciprocally pre-suppose each other (see Section 2.2.2.2 §13). As the first reply to





this question, Merleau-Ponty argues that the body as incarnated consciousness is intentionally directed (in a pre-reflective and pre-predicative mode) and open towards the world. Being-in-the-world and intentionality are different views on the unity of body and world (see Section 2.2.2.2 §8).

Merleau-Ponty's phenomenological account of the body is simultaneously an account of perception. The disciplines (contemporaneous to Merleau-Ponty's work on *PP*) dealing with perception and the body were psychology and physiology. The underlying thinking was dominated by Idealism and Empiricism. Merleau-Ponty showed that the fullness of corporeal existence cannot fully be explicated and understood on psychological, physical or psycho-physical terms alone, but the fullness of human behaviour and experience in and of the world are explicable by doing a phenomenological study thereof.

Merleau-Ponty did not dismiss all of psychology and physiology's work; he appropriated the results of psychology's work (contemporaneous to *PP*) on the four basic intuitions that one's own body is already soul-like, into his phenomenology.

The first of these basic intuitions about 'my body' that psychology found is that our body is both subject and in a limited sense, an object (see Section 2.2.2.2 §8, 13). My 'own' body is not an object like other objects in the world which I can turn away from or observe from various angles, such as a table or a chair, nor is it an object in the sense in which the physiologist would view a human body. Even though I can observe some parts of my body objectively, my body never leaves me, as my body is the permanent horizon in all my experiences (see Section 2.3.1 §3). Together with my own body as the permanent horizon in all my experiences, Merleau-Ponty held that the natural world is also the 'horizon of all horizons, the style of all possible styles, which guarantees for my experiences a given...unity underlying all the disruptions of my personal and historical life. Its counterpart within me is the given general and pre-personal existence of my sensory functions in which we have discovered the definition of the body' (*PP*:330). The permanent horizons of my body and the world show the mutual implication of body and world: to have a body means to have a world; only through my body can I know the world and only through the world can I know my body (see Section 2.3.3 §1).

The second basic intuition is that my body has the power of double sensations: as I clasp my hands I feel my right hand touching my left, but at the next moment I can feel my left hand being touched (by my right hand). This coinciding event is not experienced as that; I

cannot experience my hands as both sentient and sensible at the same moment. Thus (visual and) tactile perception always ‘refers me back to an original of the body which is not out there among things, but in my own province, on this side of all things seen [or touched]’ (see Section 2.3.1 §4). Merleau-Ponty describes this phenomenon of my body’s being able to reflect on itself, as the structure of reversible circularity (see Section 2.3.1 §4).

The third intuition is that my body is an affective object: when I say my leg hurts, I am referring to my leg as a ‘pain-infested space’ (see Section 2.3.1 §5). Merleau-Ponty writes that the knowledge of a place on my body is reducible to co-existence with that place.

The fourth intuition is that kinaesthetic sensation is presented globally in our bodily movements: I move my body directly; there is no intellectual mediating act in this process, since the ‘germ’ of the movement with the final result originates in my body (see Section 2.3.1 §5).

Unfortunately, psychology failed to see the experience of one’s own body as a phenomenon; instead, the experience of one’s own body was regarded as a ‘fact of the psyche’ (PP:94). The implications of my body ‘as my own’ were far-reaching, which Merleau-Ponty was able to identify and develop, along with aspects of Husserl’s philosophy such as the differentiation between the ‘lived body’ (*Leib*) and the objective body (*Körper*), which he adapted and developed into his phenomenology of the ‘body-subject’ (see Section 2.3.2 §1-2). Let me write down a few key points on the body-subject (the ‘lived body’) that Merleau-Ponty developed:

- based on Husserl’s ideas, Merleau-Ponty’s developed the notion that the differentiation and distinguishing between my body as subject from other objects in the world originates from the body-subject (see Section 2.3.2 §2);
- the body-subject is that fundamental function that reveals the total human being in anonymous perception itself (see Section 2.3.2 §4);
- one can experience one’s own body in two ways intermittently: my body as being-in-the-world (I exist my body, I am my body) and my body as a representational body (I have a body; I think about my body; I think that...) (see Section 2.3.2 §7,9);
- the body-subject is the meaning-giving existence on a pre-self-conscious level (see Section 2.3.2 §4);



- the body-subject is our means of communication with the world (see Section 2.3.2 §1);
- the body-subject is like a work of art, an expression (see Section 2.3.2 §5);
- I am committed to the world; I am thrown into my projects and familiar horizons by the natural momentum of existence in which there is no distinction between emotion and behaviour (see Section 2.3.2 §10).

Merleau-Ponty shows that the human body cannot be viewed as an object, the way that physiologists view the body, nor can it be viewed the same way that psychologists view it (from a third person point and not by ‘enacting’ the lived body themselves). By explaining the phenomena of the phantom limb and anosognosia, Merleau-Ponty proved his point. Physiology and psychology contemporaneous to *PP* offered explanations for the phantom limb and accompanying anosognosia (the person’s failure to recognize a disease) that amounted to reductions and *a priori*s of the Cartesian philosophical dualism (the mind-body split). Their explanations were based on the representational body (see Section 2.4.1 §1,3).

In his second reply to the question about what is meant by ‘I am my world’, Merleau-Ponty shows that by applying the phenomenological reduction, the body-subject as ‘being-in-the-world’ alone could show the fusion of the body and soul (see Section 2.4.1 §2). Moreover, we have the body ‘at this moment’ and the ‘habitual body’, as two ‘temporal layers’ of the body, which reveals our existence to be temporal and spatial. A healthy person experiences the present along with the immediate past and the immediate future (called ‘retention’ and ‘protention’) in a similar way as the ‘flow’ of a melody. An injured person’s experience shows that specific meaning-laden moments in the past have failed to be re-integrated into the totality of time and into the person’s general existence (see Section 2.4.1 §2).

By applying the reduction, the body-subject as a non-decomposable consciousness in all of its manifestations is uncovered. Merleau-Ponty continued his critique of psychology (the causal explanations for certain phenomena) and analytic reflection. In order for Merleau-Ponty to describe the spatiality of one’s own body and motility in normal behaviour, he refers to Gelb and Goldstein’s case of Mr Schneider, a brain-injured war veteran (see Section 2.4.2 §1). First, based on *Gestalt* psychology, Merleau-Ponty holds that the parts of our own bodies are inter-related in a peculiar way in that (and by virtue of the body image) we immediately know where all its different parts are (‘I am in undivided possession’ of my body)(*PP*:98). The spatiality of my body is unlike ordinary spatial relations where things are

juxtaposed or spread out next to one another; rather, the body image is a (new) whole that is more than the sum of its parts.

The nature of Mr Schneider's injury was such that he could not, with his eyes closed, indicate a position on his body (his upper arm, for instance) when asked to do so. On the other hand, he could, without mediating movements, immediately slap his upper arm where a mosquito was stinging him. He could thus perform 'habitual' or routine 'concrete' movements (such as grasping). Merleau-Ponty's interpretation of the Schneider case was to show that the body-subject is the giver of meaning in our life; that his perception was limited in the sense that he had no integrated threads of meaning in his life, as he could only perceive what was present and actual. Mr Schneider could not function in the sphere of the imaginary. He could perform the action of *Greiffen* (to grasp which is a concrete movement) but not *Zeigen* (to show, point or indicate) (see Section 2.4.2 §1).

The body image is dynamic, which means that 'my body appears to me as an attitude directed towards a certain existing or possible task...its spatiality is not...a spatiality of *position* [as traditional psychology believed] but a *spatiality of situation*' (see Section 2.4.2 §4). Thus, bodily space is given to me in an intention to 'take hold' and not in an intention to know. A healthy person's intact body image plays a very important role in integrating the threads of meaning in the person's life, as he or she can effortlessly perform movements against the general background (called concrete movements) and can project a virtual background or potential or human space that is superimposed on the general background in which abstract movements are performed (see Section 2.4.2 §4).

Indeed, as Merleau-Ponty wrote, movement and bodily motility is the expression of pre-self-conscious intentionality; intentionality is the mobility of our consciousness which enables us to move between living in the actual 'here and now' (in which Schneider was trapped) and 'elsewhere and before' (see Section 2.4.2 §4). This mobility is not founded on knowledge; on the contrary, it is conscious mobility which constitutes knowledge. Merleau-Ponty sees this mobility of consciousness as the fundamental function of our intentional life, which possesses the basic power to give meaning and to situate us. Merleau-Ponty also reminds us that abstract and concrete movement (the former projecting a virtual horizon upon the background of the general horizon) is situated only in the behavioural dimension (see Section 2.4.2 §4). Mr Schneider's behaviour reveals that his 'intentional arc' went 'limp' (see Section 2.4.1.1 §1) which shows that the pre-self-conscious and conscious

motility of the body, as well as the body-image, play a crucial role in the unity of one's 'intentional arc'.

Both the phantom limb and Mr Schneider's behaviour can be understood in terms of the general movement 'being-in-the-world' (PP:101ff). For a normal person, according to Merleau-Ponty, 'every movement has a *background* ...the movement and background form a unique totality' (see Section 2.3.3.2 §3,4). However, Mr Schneider could not perform ordered movements, which meant that his 'motor project' or 'motor intentionality' was damaged, because 'every movement [for the normal person] is, indissolubly, movement and consciousness of movement' (PP:110), since 'even 'automatic' movements [like grasping] announce themselves to our consciousness...there never occur, in our bodies, movements in themselves' (PP:123).

Bodily motility is an important aspect of the body-subject-world relation, in that our bodily experience of movement is our way of access to the world and to objects (see Section 2.4.1.1 §2). As Merleau-Ponty writes, our bodily experience of movement enables us to 'access the world and the object, with a *praktognosia*.... My body...understands its world' (see Section 2.4.1.1 §5) and '[i]n principle all my changes of place figure in a corner of my landscape; they are recorded on the map of the visible. Everything I see is in principle within my reach, and is marked upon the map of the "I can"' (see Section 2.4.1.1 §6). The spatiality of one's body is a spatiality of situation rather than that of position (like that of external objects), which means that 'here' does not refer to a specific position in relation to other positions, but as the 'anchoring of the active body in an object, the situation of the body in face of its tasks' (see Section 2.6.1.1 §2).

By virtue of bodily motility, each 'there' is a potential 'here'. For Merleau-Ponty, this tension created by my bodily space is the beginning of its transformation into universal space and theoretical space (see Section 2.6.1.1 §5; PP:108,109). Bodily motility and its possibilities are grounded in this tension and they provide the foundation for spatial orientation, where space forms a horizon for multiple possible movements, expressions and so forth. The body-subject's constructed space provides the background for abstract movement. '[B]y virtue of the possibilities opened to it by thematization of the "I can," consciousness is liberated from the immediacy of the bodily projects made in response to the concrete and given context, and may now undertake movements in the human space of potentiality (as opposed to the physical space of actuality)' (see Section 2.6.1.1 §5;

PP:109). ‘Only in action is the spatiality of the body brought into being’, and together with external space, bodily space forms a practical system (PP:102; see Section 2.6.1.1 §1).

Merleau-Ponty adds that bodily space and universal space derive their meaning in a reciprocal manner: ‘[In its individuality] as bodily space, it contains the dialectical ferment to transform it into universal space... [thus] the point-horizon [figure-ground] structure is the foundation of space’ (see Section 2.6.1.1 §6; PP:102). Merleau-Ponty adopted and adapted aspects of *Gestalt* psychology into his phenomenology, as discussed below. For him, every figure stands out against this ‘double-horizon’ of bodily and external space (see Section 2.6.1.1 §6). All reference to ‘oriented space’, bodily space or the universal form of space is laden with anthropological associations, otherwise ‘top’ and ‘bottom’, ‘on’, ‘beside’ or ‘under’ would be indistinguishable for us. Thus the ‘body’s spatiality has no meaning of its own to distinguish it from objective spatiality....[rather, we should look] for the latent meaning of experiences’ (PP:101-102).

Merleau-Ponty illustrates an important aspect in his phenomenological account of Mr Schneider’s illness, one which Intellectualism and Empiricism could not account for, namely that ‘the world-structure, with its two stages of sedimentation and spontaneity, is at the core of consciousness, and it is in the light of a levelling-down of the “world” that we shall succeed in understanding Schneider’s intellectual, perceptual and motor disturbances without assimilating them to each other’ (PP:130). At the core of Schneider’s illness is the disturbance of his existential life which inhibits his spontaneity, ability to play-act and symbolic function (see Section 2.4.1.1 §1).

Since bodily motility is basic intentionality (see Section 2.2.2.2 §10), Merleau-Ponty shows that in ‘order for us to move our body towards an object, the object must first exist for it’ (PP:139). Our body must ‘understand’ its world, objects and space, because the mere knowledge of objects and space does not guarantee bodily knowledge (*praktoknosia*) of those objects and that space. Therefore, our body *inhabits* space and time (our body is not *in* space and time, nor is space a container) (see Section 2.6.1.1 §7).

Merleau-Ponty describes the synthesis of one’s own body as analogous to a work of art (see Section 2.3.2 §5). Firstly, the results of his analysis of bodily space can be generalised, in that corporeity and all perceived things share the fact that ‘the perception of space and the perception of the thing, the spatiality of the thing and its being as a thing’ are part of

the same problem, because ‘the experience of our own body teaches us to realize space as rooted in existence’ (*PP*:148).

The third reply to the question (‘I am my world’) is that, for Merleau-Ponty, I am not in my body (or in space); I am both. This unity of the body, compared to a work of art such as a painting or music, is incommunicable as an idea - one can only communicate it by means of the colours and sounds of that specific painting and music in which the full meaning of the analyses is found (see Section 2.3.2 §5). The nature of bodily space is illuminated by certain motor habits, but habit in general throws light on the synthesis of one’s body, since motor habits can be extended to all habits in general (see Section 2.6 §4). Motor and perceptual habits are the body-subject’s way of ‘coming into possession of a world’ (*PP*:153). Merleau-Ponty’s notion of habit is explicated in the next section.

Entwined with the development of the body-subject is Merleau-Ponty’s explication of the phenomenal notion of the world and of perception: he argues that a theory of the body is already a theory of perception (see Section 2.3 §1). For Merleau-Ponty, the world is not one ‘thing’ or the sum of all things and the totality of all that I perceive as reality, rather, the world is the ground from which all things emerge as processes unfolding in space and time (see Section 2.3.3 §3). The world functions as the permanent horizon of all my thoughts, actions and perceptions. This permanent horizon exists for as long as I am alive, and it contains everything for me or for us (see Section 2.3.3 §3). Within the permanent horizon we can have different ‘worlds’, such as the world of music, the imaginary fairy-world of the child, the academic world and so on. I lead my life in many of these different worlds, and these lived worlds or lifeworlds can be described phenomenologically (see Section 2.3.3.3 §1).

The lifeworld for Merleau-Ponty is the world as lived-through prior to the objective world. Our lifeworlds include the realms of other people, history, language, culture and the imaginary. He believed that we shall discover, in all these different levels or realms of experience, the (enriched and transformed) structures of consciousness, but more importantly, none of its qualities can be reduced to perception as such (see Section 2.3.3.3 §2).

Although a phenomenological account of perception is not a ‘linear’ process ordered in a specific manner, it is possible to write an outline of Merleau-Ponty’s explications thereof. The dimension of the pre-self-conscious in our existence goes as deep as all of our

perceptions, because ‘every perception takes place in an atmosphere of generality, and is presented to us anonymously’ (PP:215). First of all, we have present at this moment a perceptual field, ‘a surface in contact with the world, a permanent rootedness in it’ (PP:207). Perception of something is always in the middle of something else; in other words, perception of something is always part of a perceptual field (see Section 2.3.3.1 §1), of which something will stand out as a figure against the background, with the background containing the potential for becoming a subsequent figure against the background to which the former figure will retreat within the same perceptual field. But the unity of the object of our focus is ‘foreshadowed’ by an ‘immanent order’ which is a reply (to questions that are) latent in the landscape (PP:17).

The fourth reply from Merleau-Ponty is that to have senses is to possess those general settings or frameworks of potential sense-type relations that help us to take up any given sensory grouping. My body possesses ‘a universal setting, a schema of all types of perceptual unfolding and of all those inter-sensory correspondences which lie beyond the segment of the world [which we actually perceive]’ (see Section 2.4.3 §15). For Merleau-Ponty, Herder’s words ‘[m]an is a permanent *sensorium commune*, who is affected now from one quarter, now from another’ are a new notion of the body image; it is a new description of the unity of the body, and the unity of the senses and the object. Here we again can notice the germination of Merleau-Ponty’s later ontology of the flesh when he also says: ‘My body is the fabric into which all objects are woven’ (see Section 2.4.3 §15). My body gives significance to natural and cultural objects, such as words or music, which induce certain bodily experiences or an event that ‘grabs’ or ‘moves’ me (see Section 2.4.3 §15).

For Merleau-Ponty, the experience of perception is ‘our presence at the moment when things, truths, values are constituted for us’ and that perception is a ‘nascent *logos*’ which teaches us that each form of perception is the birth of knowledge. Mental assemblages of sense experience do not constitute knowledge about the world; rather, knowledge is, in Merleau-Ponty’s words, ‘to recover the consciousness of rationality’ (see Section 2.4.3 §16; PrP:25). Perception is ‘perspectival’, ‘inexhaustive’ and ‘temporal’ (and therefore it can be anonymous and general) and a paradoxical experience of both immanence and transcendence; perception is a unique act which does not coincide with continuous states of consciousness, nor is perception a logical organisation of thought (see Section 2.4.3





§16). Most importantly, the subject of perception is my body by virtue of my body being a natural self (*PP*:206).

It is important to remember that we create space through our bodily intentionality, as concretized in movement. Being a mediation of the world, one's body 'understands' its practical and imagined worlds; the body projects a cultural world by making and using technical objects and has the power to communicate and think on the literal and figurative levels; and finally, the body creates and uses symbols to mediate the social world (see Section 2.6 §11). Merleau-Ponty shows us the roles that the lived body plays in habit: firstly, my bodily space is 'the matrix of [my] habitual action and also [is] an objective setting; [my] body is at [my] disposal as a means of ingress into a familiar surrounding'. My body is also the means of expression of a free spatial thought (see Section 2.6 §11).

The answer to the question of what makes Merleau-Ponty's approach to embodied existence and perception unique can be summarized as follows: firstly, Merleau-Ponty studied pathologies and dysfunctions in perception in order to understand normal perception better. Secondly, Merleau-Ponty applied the principles of *Gestalt* psychology to gain a deeper understanding of the human body and perception. Merleau-Ponty's project did not end with *PP*. He broke away from Husserl's ideas. Closer to the end of his career, his ideas moved closer to those of Heidegger, as Merleau-Ponty developed an ontology of Being in *VI* in his explications of the *flesh*. Merleau-Ponty's reversibility thesis and the *chiasm*, replaces his notions of the body-subject and world interrelation. In the next section, I continue with Merleau-Ponty's explications of embodied perception, showing that the body as matrix of all habitual action reveals the dynamic and pliable nature of our corporeal existence.

#### 4.4 Inhabiting

In this section, I show how the notion of inhabiting involves the natural self (the perceiving body) and the inter-subjective (social, historical and cultural) world. I give a short outline of Merleau-Ponty's notion of inter-subjectivity. Then, based on Merleau-Ponty's notion of the body and habit acquisition, I show that individual habits and acquired habits at the social and cultural levels are interrelated. Social habits become sedimented, as a 'second nature', which informs our perceptions. I show this by referring to Bourdieu's notion of *habitus*.



With habit acquisition, the cultural world is projected around us, as we create instruments and technological artefacts to reach certain aims, according to Merleau-Ponty. I introduce Ihde's ideas on technology as a supplement to Merleau-Ponty's limited explications thereof, and I show that Bourdieu and Mauss's notions of *habitus* and body techniques inform both Merleau-Ponty and Ihde's philosophy, and what it means to 'inhabit' something in terms of Ihde's work. I focus on Ihde's explications of human-technology relations as part of inhabiting the cultural world, and end this section by returning to Merleau-Ponty's explication of how our body inhabits the natural world by referring to his explication of spatial and temporal perception in preparation for the explication of 'built space'.

Merleau-Ponty believes that philosophy is more than a mere speciality or a technique. The only condition under which philosophical knowledge can become absolute knowledge is what he later termed the 'hyper-reflection' - when we 'not only adopt a reflective attitude in an impregnable *cogito* , but furthermore reflect on this reflection, understand the natural situation which it is conscious of succeeding and which is therefore part of its definition...[we must] realize the transformation which it brings with it in the spectacle of the world and in our existence...The core of philosophy...lies in the perpetual beginning of reflection at the point where the individual life begins to reflect on itself. ...True reflection...knows itself as reflection-on-an-unreflective-experience, and consequently as a change in structure of our existence' (PP:62).

Merleau-Ponty focused on the perceiving body-subject, the structures of consciousness and that of the world, which he found to be analogous with language and expression (see Section 2.5 §3). The inter-subjective world (society, culture, history and language) is the world we inhabit. In this world I can only conceive of myself as an 'I' or a 'subject' when I am aware of other subjects or 'I's' from whom I can distinguish myself (see Section 2.5 §3). In its contact with the world, the body always transcends itself, just as language transcends itself. It is the transcendental character of the body which makes co-existence and communality with others via our corporeity possible. In *VI*, Merleau-Ponty viewed inter-subjectivity anew as an inter-corporeality, inasmuch as different subjects are specific instances or configurations of the same flesh (see Section 2.5 §3).

Meeting the other takes place in the corporeal sphere as a spontaneous and immediate reciprocity of meaning in which meaningful bodily gestures supplement one another (see Section 2.5 §4). To have communality with others, for Merleau-Ponty, means that we share the same world, and this is achieved through language, which is that 'cultural object' that

plays a crucial role in the perception of others. Language constitutes a common ground for myself and other people, so that our thoughts become interwoven and we become a dual being that contains the past and the future, sensing and sensed, a front and a back (see Section 2.5 §4). Language is lived, willed expression; it is not subjected to essences and concepts, but is a dimension of expression. Therefore, because I use language as an instrument of expression, it becomes possible to transgress beyond my own cultural language to express myself in another language (see Section 2.5.1 §5), in the same way that style makes signification possible: we must understand the origin of signification and its liberation in the creative act, in order to understand other cultures, art and languages (see Section 2.5.1 §5).

Being primarily social beings, as Merleau-Ponty puts it, ‘we acquire our habitual yet changing ways of inhabiting and moving in our world’, so that the changeability of our perception has a social and a habitual aspect (see Section 2.5 §5). This dynamic aspect of our being in society is also made possible because there are no fixed objective frameworks for perception, since perceptions are dependent on and derived from their *situations* (see Section 2.5 §5). The cultural world is the world that we have projected around us; it is the human world as a second ‘layer’ over the natural world. Merleau-Ponty aptly describes these worlds: ‘Consciousness projects itself into a physical world and has a body, as it projects itself into a cultural world and has its habits.’ It is all ‘lived experience [that] tends towards a certain generality - whether that of our habits or that of our “bodily functions”’ (PP:137). This again shows that consciousness is a matter of ‘I can’, since our body (as a system of ‘motor’ and ‘perceptual powers’) is a grouping of lived-through meanings (see Section 2.8 §6).

We learnt that the unity of our body and that of the world for our perception is possible by the mediation of our body; our body is capable of acquiring habits that, in the process (and pre-self-consciously), re-structures the body image (see Section 2.6 §4). It is important to remember that habit inhabits neither thought nor the objective body, but is in the body as mediator of a world (PP:145). The acquisition of habit is irreducible and, therefore, the two temporal layers of the body, namely the ‘habitual’ body’ and the body as it is at this specific moment, give significance to our personal styles and ways of being-in-the-world. It is by virtue of habit that our body is our ‘anchorage’ in the world (see Section 2.6 §4). Getting to a ‘state’ of inhabitation, our body reveals temporality and spatiality: our past

experiences habitually become part of the present experiences, allowing for spontaneity in the present and in future experiences.

Our past experiences have built up layers of bodily ‘knowledge’ and understanding of our world that have become ‘sedimented’ in the formation of our habitual body, which releases our consciousness from becoming ‘bogged’ down in the present, releasing it from having to constitute the world in the present (see Section 2.2.2.2 §12). This allows the person who perceives an object to ‘inhabit’ the object by bringing the person’s own history and perceptual tradition into the present, and thereby adding to the ‘thickness’ of the percept (see Section 2.2.2.2 §12). As with my own body, the world-structure has its two stages of sedimentation and spontaneity, which, Merleau-Ponty writes, is at the core of consciousness (*PP*:130).

How do I know that the world that I conceive - the colours, the sounds, even my pain - is the same as that of someone else? Merleau-Ponty replies that my private world and that of the other sometimes meet and invade each other, that another private world shows through in mine, when someone responds in a dialogue my thoughts without my having spoken them; in these moments, I know that life is being lived beyond myself (*VI*:11). Ultimately, it is in the world that we communicate; it is in the painting that I enter into the other’s emotion. It is only through the world that I can transcend myself, so that our private worlds meet. In communication, we witness one sole world. This truth, according to Merleau-Ponty, is unjustifiable and based on the fact that we live it; the shared sensible world is the seat of this truth for us, and it is the perceptual faith beyond scepticism that we borrow from the world-structure, that truth and thought are constructed for us (*VI*:10-12).

We learn from perceptual experience that there is an optimal proximate distance and point of view in which the object is ‘best’ presented to my view (*VI*:37): ‘I say that I perceive correctly when my body has a precise hold on the spectacle, but it does not mean that my hold is ever all-embracing...Perceiving is pinning one’s faith...in the whole future of experience. We learn that to reflect on perception there is a certitude that the perceived thing remains the same from different proximities and we must transfer this certitude to the interior. In this way we think that to reflect on perception is, “*the perceived thing and the perception remaining what they were*, to disclose the true subject that inhabits and has always inhabited them’ (*VI*:38; Merleau-Ponty’s emphasis).

Our body's *praktoknosia* becomes part of social and individual habitus; as Merleau-Ponty writes: '...into each perception and into each judgement I bring either sensory functions or cultural settings which are not actually mine...the fact remains that I am the one by whom they are experienced...' (PP:358). Our in-born technical potential is developed by our being in the world. So too, can our interaction with technology become 'second nature' in our everyday lives (see Section 3.2.1.2 §12). Merleau-Ponty's, Mauss's and Bourdieu's explications of techniques and habits are applicable to our interaction with technical instruments, an important aspect of the human body's spontaneous and habitual engagement with our lifeworld (see Section 3.2.1.2 §12).

Bourdieu's and Mauss's philosophy of bodily technics and social practice (specifically as appropriated by Wolff, 2009a:1-15) relates to Merleau-Ponty's notion of the two temporal layers of the body, namely, the habitual body and the body at this moment, in which the habitual body allows for spontaneous improvisations by the body at this moment. In this regard, Bourdieu (1977:22) argues that each individual habitus is a 'structured structuring structure'. Moreover, for Bourdieu, each individual habitus is a structural variant of social class, or group habitus, which echoes Merleau-Ponty's belief that each individual history is part of the social history. This notion is also taken up by Don Ihde when he discusses the relation between 'body one' and 'body two' and 'micro- and macro-perceptions', which is primarily based on Merleau-Ponty's account of embodied perception. However, the ways in which humans relate to technology as worked out by Ihde can also be informed by Wolff's appropriation of the Bourdieu-Mauss pairing. Firstly, 'Mauss underscores two aspects of the technicity of the body: it must be traditional (indicating its societal formation by the taught tradition) and it must be effective (referring to the skilfulness and repeatability of a particular action)' (Wolff, 2009a:3).

Secondly, as Wolff (2009a:7) informs us,

the habitus constitutes that field as a meaningful world and as practical sense the habitus is an anticipated adjustment to the demands of each field. Concentrated on human technicity, this implies that the different technical domains in which people find themselves structure their bodily technics in a manner that is appropriate for that domain, not in absolute terms, but in the sense that the bodily technics develop in a way so as to fit more or less the different implicit and explicit requirements of that domain. These requirements are not necessarily exclusively technical or aimed at the sole purpose of efficiency - in fact they may be symbolic (for instance, aesthetic), social or technical, or a combination of these (think for instance on the different criteria of excellence in the sport of ice-skating). Furthermore, the processes by which an organism acquires bodily technics would be socio-technical, since the technical domains themselves are actually socio-technical

domains. This means that the competency of bodily technics is acquired through the interaction between people (education, instruction...etc). (Wolff's emphases)

Revisiting Ihde's philosophy of technology, especially the structural relations between humans and technology will elucidate how we inhabit the technologically textured lifeworld. There are five variations to his basic human-technology-world structure, in which our embodied perceptions of and interrelation with the world are mediated by technological means. Technological mediation transforms our experiences and perceptions of the world in various ways. At the level of experience, Ihde wants to understand the different roles that technology plays in our relation to reality. At the level of culture, he inquires about the relation between culture and technological artefacts (see Section 3.2.1 §1).

The five structural variations to Ihde's interrelational 'human-technology-world' structure, are

- Embodiment relations in which the artefact 'recedes' into the sphere of the body to become embodied and subsequently incorporated into the body-image (see Section 2.6 §4): this relation is constituted by means of acquired skills or habits. The embodied artefact functions as an extension or magnification of the body's senses or physical capabilities in the person's interaction and perception of the world. The perceived experienced world, through technological mediation, usually produces magnification of one perceptual sense while reducing others (see Section 3.2.1.1 §3).
- Hermeneutic relations: the main characteristic of Ihde's hermeneutic relations is the interpretation of the representation of the world by means of technology. The artefact involved in a hermeneutic relation is the terminus of my perception; the machine itself 'imports' that aspect of the 'real world' which I cannot naturally or would not normally perceive in my everyday life (see Section 3.2.1.2 §2). In other words, the machine as 'other' which has 'translated' aspects of the real world into signs, codes, figures or text gives me the translated data which I have to 're-translate' or decode and interpret as back into a representation of the real world (see Section 3.2.1.2 §3). When I 'read' the density of concrete on a penetrometer, I am involved in a hermeneutic relation with that instrument. Each world, like the world of construction, has its instruments of use for the field. The skill and dexterity required to operate and use these technological artefacts for the field are acquired through habit.

- Alterity relations: When I am involved in an alterity relation with an instrument or artefact, the locus of my intentional and direct perception and experience are the instrument/technological artefact itself in an interactive manner. It is as if the artefact is an embodiment of the world (see Section 3.2.1.3 §7). Ihde borrows the term ‘other’ from Levinas’s philosophy of the ‘Other’ (see Section 3.2.1.3 §2), where the technological artefact becomes a ‘quasi-other’ in the human-technology-world relation.
- Background relations: Ihde uses the example of air-conditioning systems that regulate the room temperature or other automated environmental controls such as lighting, white noise played in buildings from a centralised music system, but also the ‘white noise’ produced by the systems and appliances in the background. Ihde refers to our technological environment as a ‘technosphere’ or cocoon in which we find ourselves and which encompasses all dimensions of our relations (see Section 3.2.1.4 §1). This environment has become so comfortable that we almost cannot imagine our lives outside these cocoons (see Section 3.2.1.4 §2). The contexts that Ihde talks about in the above examples are inside buildings in which the background technologies operate. Ihde also regards the urban setting as a complex of interrelated buildings as a field-like background phenomenon, which, depending on the climatic setting, varies between open shelters to completely insulated technological cocoons (a wished for ‘totalized shelter technology into a virtual life-support system’ (see Section 3.2.1.4 §3). City services such as traffic lights, roads, building services, lights, sidewalks and complexes of buildings form a permanent field-like background to our going about our daily lives.
- Horizontal relations: Ihde describes horizontal human-technology relations as those in which the technology’s effects transform one’s experience of the lifeworld, such as medicine or drugs in which the constitution of the human agent is affected (see Section 3.2.1.5 §1). A great body of research has been published on questions such as where human agency ends and technology begins, or whether we are in a ‘post-human’ or ‘cyborg’ era. I believe that our corporeal existence and our primordial ‘cleaving’ to the world is innate (an inborn complex). The irreducible intertwining of body and world cannot be ‘unravelling’ by technology.

In all of these relational variations, when the technological artefact breaks down or malfunctions, it becomes, to use Heidegger’s terminology, ‘present-at-hand’ or obscure (refer to Table 1 for an analysis).

In terms of spatial perception and experience, let me summarise Merleau-Ponty's main explications (which Ihde adopted in his explications of 'macro-perception') as it applies to our inhabiting of built space.

- The answer to Mallin's (1979:282) question 'Is space a "form" of knowledge?' is emphatically 'no', as the concept of space as a form of knowledge is a Kantian (Intellectualist/Idealist) notion (see Section 2.6.1 §2,3). Merleau-Ponty answers that, because perception is pre-self-conscious experience, pre-objective and non-positing, we can only 'provisionally [say] that there is a merely possible stuff of knowledge...It is in the experience of the thing that the reflective ideal of positing thought will have its basis' (PP:242). Therefore, analysis, according to Merleau-Ponty, is unjustified in 'positing' any stuff of knowledge, since analysis arrives at the pure subject which posits both the object of science and at sensations as a private phenomenon (PP:242,243). Unlike Idealism, which treats the experience of the world as a pure act of constituting consciousness (PP:243), Merleau-Ponty suggests that, through reflection we discover a 'new intentionality' that can be approached more directly by examining (and to answer Mallin) a 'form of *perception*...the notion of space' (PP:243; my emphasis).
- Merleau-Ponty writes that we can only study the ways of our conception and experience of space when we look at extraordinary situations. It is difficult to explicate certain experiences in our everyday life, such as the experience of 'up' or 'down', in a phenomenological way. He refers to the exceptional cases in Stratton's and Wertheimer's experiments (see Section 2.6.1 §4), after which Merleau-Ponty postulated a third spatiality which is neither the Kantian notion of things in space, nor that of spatializing space (see Section 2.6.1 §4). Stratton and Wertheimer's experiments show that the image does not govern our experience of 'up' or 'down', nor when the tactile body links up with the visual body. Therefore, 'one cannot take the world and orientated space as given along with the contents of sense experience or the body in itself (see Section 2.6.1 §5). These findings led to the conclusion that the significance of everything that determines space, for example, 'up', 'down', 'there', and so on, depends on an actual starting point, an absolute 'here', which explains the body as the point-horizon in space. Merleau-Ponty concludes that normal perception recognizes a previous established *spatial level* as the reference for the way in which the current spectacle appears (see Section 2.6.1 §6).

This shows that history is inscribed in our bodies as in the world that human beings



‘inherited’: the world is as already given, prior to our personal existence. Having a body also means that I have inherited, with the world, innate ‘human’ structures to be in the world in specific ways (as pre-given bodily potentialities) that develop into habitual structures (see Section 2.6.1 §6). Then ultimately, what do ‘top’ and ‘bottom’ mean? Merleau-Ponty demonstrates that Wertheimer’s experiment proves that the ‘spatial level’ cannot be identical to the orientation of our body, and Stratton’s experiments prove that the space of our perception is neither the space of things, nor a ‘spatializing space’, but that my body has a form of possession of my world by means of a pre-established spatial level (see Section 2.6.1 §7). Thus, by virtue of our bodily ability to change levels (by means of its ability to create a ‘possible habitat’ by transposing virtual space into an inhabitable spectacle) (*PP*:250), and the fact that space is existential, Being, according to Merleau-Ponty, only has *sens* through its orientation (*PP*:253).

- Depth is not ‘perceived’ as such. Apparent size, conversion and distance are, according to Merleau-Ponty, depth’s motives (see Section 2.3.7.1 §4). Depth belongs to the perspective and not to things, so that the phenomena of ‘apparent size’ and of distance are two phases of a comprehensive organization of a field (*PP*:259). Depth is the primordial existential dimension, as it is the only dimension which immediately reveals at first sight the relation between the subject and space (which in turn reveals our primordial facticity), whereas breadth and height are derived from depth, as relations between objects. Moreover, height and breadth (width) are in also existential dimensions and not mere abstractions from the lived world (see Section 2.3.7.1 §2,3,7,10).
- Motion (movement) is a phenomenon of levels, according to Merleau-Ponty (see Section 2.4.2 §7), because movement ‘presupposes a certain anchorage which is variable (the relation between a moving object and its background passes through our body’ (see Section 2.4.2 §7). Movement is relative: standing on the deck of a boat, I can look at the building on the shore as a visual ‘anchor’. The shore is stationary while the boat is perceived as moving, or in some cultures, the land and water will be perceived as moving by, while the boat is perceived as stationary.
- Spatial perception is a structural phenomenon which is only comprehensible within a perceptual field (see Section 2.6.1 §10). Thus we live space, as our experience of spatiality expresses our anchorage in the world.

- The physical distance and objective time differ greatly from our experience of ‘lived’ distance and time. ‘Near’, ‘far’, ‘accessible’, ‘within reach’, ‘out of touch’ have meaning in terms of bodily motility and the body-subject’s notion of ‘I can’, which shows the body’s own intentional structure that is pre-predicative and pre-conscious in lived space. Lived space is that practical space which is bodily space - it is oriented around the body’s physical structure and projects to fulfil the needs of the body (see Section 2.6.1.1 §1).

Inhabiting the world, space, time, language means that our existence is spatio-temporal and that the temporal structure of our body and that of our lifeworlds allows us to develop our unique styles of being-in-the-world.

## 4.5 Built space

### 4.5.1 *The technical artefact: an example put to the test*

The Olympic Games in Beijing during 2008 was a world event. Not only did the city revolve around the sports events (with the whole array of concomitant services involved in hosting an international event on such a scale), but the city also had the world’s eyes on it via the ‘live’ international television broadcasting. The two main sports stadia and the airport were named the ‘Bird’s Nest’ (the main sports stadium), the ‘Water Cube’ (the swimming events stadium) and the ‘Dragon’ (the new airport). Apart from the hermeneutic act of interpreting the symbol and myth of the dragon in the Chinese culture (in the case of the airport), humans and the building are in a hermeneutic relation when the perceiver ‘reads’ the building as a ‘sign’ that is interpreted as an analogy to a natural bird nest, an ice cube and a dragon, for example.

Unless there was a deliberate focus on the architect’s design intentions (such as the analogy of the airport building form to a dragon, which is only apparent when one ‘reads’ the site plan),<sup>122</sup> one would not be able to recognise or interpret the form of the building as such in experiencing the building space. Unique to the general typology of the airport building’s form and structure is its visual impression of weightlessness, which is associated with birds or aeroplanes in flight. The circling of aeroplanes outside the building structure of an airport (thus the function) allows for this analogy in the physiognomy (form) of the building. Thus the airport as an artefact has the shape of a bird with its wings spread out.

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<sup>122</sup> *Man made Marvels*, 2007.

Analogies are usually expressed in the architectural representation of the building, for instance, small-scale models, plans and elevations. To perceive of the physiognomy of the completed building of the airport is only possible by viewing the building from the air. This building has been ‘contextualised’, in that a cultural symbol<sup>123</sup> has been imposed onto a general functional typology. However, there are aspects of myth (the fire-blowing dragon) and *mimesis* that one can recognise, and the mechanical ‘dragon’ takes on a ‘life’ of its own, in a number of ways.

The baggage system operates as networks of arteries through the buildings.<sup>124</sup> Over 400 elevators articulate the wings’ verticality and physical depth of 80m. The metal clad structure<sup>125</sup> can contract and expand up to 800mm laterally and vertically over the width of each dragon wing to allow for thermal movement and that of potential earthquakes. Each structural frame has loosening connections that consists of 32 steel joint sockets. The structure thus performs movements similar to those of skeletal bones, ligaments and joints. Roof windows (skylights) that resemble the ‘scales’ of a dragon’s skin serve the function of letting natural light into the building. For me, looking at a plan, these sizes are mere abstract figures on a Cartesian grid.

By performing the phenomenological reduction, the essence of an airport (such as Beijing Airport or O.R. Tambo in Johannesburg) is a constructed place or nexus for the spatio-temporal transition of the human body by means of technology. The question arises, what constitutes Beijing Airport’s technicity? Firstly, the building in use is a *system* that is part of a larger one (the air transport industry). It is ‘served’ by other transport industries such as the automobile, railway and shipping industries that culminate in the global transport industry. Below are some sub-systems that directly and indirectly interrelate within the whole.

First, the architectural representation and documentation serve as the ‘blueprint’ for the building contractors’ construction methods and materials. Second, the construction

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<sup>123</sup> The new soccer stadium for the world cup event in Johannesburg is another instance of a superficial imposition of a cultural symbol (in this case a ‘calabash’) on a predetermined form derived from function and structure alone.

<sup>124</sup> At a total length of several kilometres per ‘wing’ and three levels deep, this baggage transport system moves at a speed of 68km/h to distribute 250 000 pieces of luggage per day.

<sup>125</sup> The building structure consists of a series of steel portals that span up to 800m with unsupported cantilevers of 35m. The length of each wing is more than 2 km. This airport is described as the largest roofed space on the planet. The way that this built space is referred to is as if it has been observed from outside our lived world.

processes and the labourers' engagement with the materials and interaction and communication with one another form another system of construction operations. Third, the building services reticulation consists of sub-systems, for instance, mechanical services (air-conditioning, ventilation, luggage carrier systems), electrical systems (such as lighting and power supply), data networks and telecommunication services (computers, telephones, imaging devices such as electrical bill boards for flight schedules) and security systems such as the control tower radar, x-ray machines and tomography as a method of access control of passengers. Other sub-systems are plumbing and sewer systems, human transport (horizontal travellers and diagonal escalators and vertical elevators) and fire control systems (fire-staircases, hose reels, sprinklers, smoke alarms, etc). Restaurants, bars, shops and many other ancillary systems operate separately and collectively within the whole. These are only few examples of systems that have to be co-ordinated in the functioning of the building. The whole system is only functional through human agency. The staff, crew, passengers and visitors complete the system.

Secondly, the technicity of the airport becomes manifest in the different modes of interface between human and technology. Effectively, most processes in airports are regularized: firstly, at a very basic level: passengers are identified by their seat numbers, luggage contents and weights are checked. At a deeper level, submission to regularized actions, such as the walk-through scanners, (and more often than not) personal body checks, along with the 24 hour 'gaze' of security staff and cameras in and around the airport contribute to the objectification of humans. This demonstrates Foucault's argument<sup>126</sup> on the 'technologies of power' that the State uses to justify mechanisms (such as racism in its different forms, the classification of criminals, the mentally ill or other 'anomalities'<sup>127</sup>) that it exercises to exert power and control over human individuals and societies.

Computerised systems (such as robots) control airflow, ambient temperature, lighting, intercom announcements, background music, television channels and so forth. Public departure areas before intensive scanning gateways (areas to which relatives and friends - non-passengers - are limited) have limited seating for conversation, greeting or repose. Seating in check-in waiting areas is provided in or next to shops and restaurants. Thus, temporary human comfort is available in exchange for consumption.

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<sup>126</sup> Cf. Foucault (2004. Ch. 11). '17 March 1976'.

<sup>127</sup> Ibid: 258.

The difference in the intensity of security measures taken against possible terrorist attacks at local flight arrivals and departures and international flight arrivals and departures epitomizes the covert regularization of bodies that traverse invisible boundaries between nations, cultures, societies and individuals. I think this phenomenon might illustrate the reason for the rapid ‘globalization’ by means of the internet and World Wide Web, which can be ascribed to a perception of safety in physical distance, for the security risks relating to terrorism in the safety of one's own home is not a factor. Yet, the virtual world of the Internet is another form I think, of ‘vertiginous proximity’ that may lead to the ‘illnesses’ and ‘neuroses’ that Merleau-Ponty wrote about (*PrP*:154), albeit in different forms, such physical withdrawal from social life. Let us move to Merleau-Ponty and Ihde in light of the explication of the airport.

#### 4.5.1.1 *Ihde and Merleau-Ponty*

In the example, the question arises whether Ihde’s model of human-technical relations, as well as his question (what kind of lifeworld is made possible by means of technology) is inherently dichotomous. His model for analysing the structural relations through the human-technology interface is done on a physical level, while his question on the kind of lifeworld made possible through technology is interpreted according to the Heideggerian ontology of the *Gestell*; however, technology is the cause of Ihde’s relational model on an ontic level. As mentioned in the previous chapter, Verbeek writes that Heidegger sees the physical, artefactual aspect of technology as one of the results of the way that the *Sein* of this epoch is revealed. Merleau-Ponty’s approach to perception and experience in *PP* is rooted in the body-subject-world dialogue, which in experience is pre-propositional and does not ask ontological questions such as Ihde and Heidegger do. We can see here a difference in approach to perception and experience between Ihde and Merleau-Ponty.

Ihde’s approach in his structural relational model asks what the role of material technology in our perception and experience of the lifeworld is. This approach complements Merleau-Ponty’s question on the role of the body-subject in our perception and experience of the lifeworld. Let us consider Merleau-Ponty’s ideas on embodiment of artefacts through habit acquisition, which changes the body *schema* and thus enables the body-subject-world relation in new and different ways. Let us compare them to Ihde’s notion of embodiment relations that mediate perception and action, by examining the example of passengers pushing their luggage trolleys to the check-in counters.



For Merleau-Ponty, the body-subject is primordially intertwined with the world, an aspect that Ihde neglects in his explications of embodiment relations (see Sections 2.6 §19,20 and 3.2.1.1 §12,13). The principle of Merleau-Ponty's account of the woman with the feathered hat that becomes embodied in her 'style' of moving about, which shows the change to her body *schema*, could also apply to a passenger wearing a backpack and pushing the trolley. Firstly, I perceive the passenger with his backpack and trolley as a *Gestalt*. This means that I observe the passenger's equipment, as being part of him. The passenger engages with the world while his equipment is incorporated into his body *schema*, and his engagement with the world takes place in tandem with his new adapted way of moving through the crowd. In Ihde's model, the passenger and his 'stuff' are in an embodiment relation while moving in the crowd.

The man pushing the trolley is in a different kind of embodiment relation than Ihde's perceptual extension/reduction binary resulting from perception by means of the artefact. I think we can say that it is a matter of 'expectation', or what Merleau-Ponty says, perception runs ahead of itself (*PP*:418), in that the passenger does not expect to perceive anything by means of the trolley, but by pushing the trolley he may accidentally bump against a rail which gives him perceptual feedback from the world. I think this principle of 'expected' and 'unexpected' feedback that our world provides in our engagements applies to all the kinds of relations we have with technology.

Merleau-Ponty's notion of embodiment is not mainly concerned with technology, as in Ihde's philosophy. His is rather an explication of skill and habit acquisition as part of his account of the human being in the world; moreover, Merleau-Ponty shows the body is a system of motor and perceptual habits and the human body equally performs the process of grasping meaning with or without technological mediation (*PP*:152,153).

Our bodily intentionality underpins our engagement with the world. For Merleau-Ponty, the body-subject has the power to generalise; it forms a general attitude towards particular tasks that can vary through creative or spontaneous behaviour (Seamon, 1979:51), for instance, pushing a baggage trolley, which has a different braking mechanism than that on trolleys at a different airport, which requires some adaptation to the general trolley-directing skills that the passenger's body already possesses.

Artefacts incorporated into the body *schema* mediate interactive skills such as a hammer or a pen. Limited perceptual feedback from the environment is obtained (such as the texture

of the paper one is writing on), since the artefacts' primary function is to act on the world, while various artefacts in an embodiment relation mediate both perceptual and motor skills. Merleau-Ponty's example of the blind man's cane (which also applies to our airport passenger's trolley) is such an instance: firstly, a motor skill is acquired in pushing a trolley, and through its skilled use, it withdraws as the passenger learns to negotiate different floor surfaces, ramps and so on, which he can feel through the trolley wheels. Our engagement with the world is mediated through our body's notion of 'I can' (see Section 2.2.2.2 §9).

Ihde's original motivation for referring to 'embodiment' instead of 'human' or 'subject' was to refute contemporary criticism against the so-called 'subjectivity' of phenomenology. The 'I' which Ihde later uses in his structural relations in human-technology interfaces refers to Merleau-Ponty's 'body-subject' (the 'lived body').

Merleau-Ponty showed us that the body-image is dynamic; and that the spatiality of the body is not a spatiality of 'position' but that of 'situation'; in other words, the body is a 'place' that is intentionally directed towards a certain task which also forms part of the situation in which this task is performed. It becomes clear in *VI* that Merleau-Ponty moves from the terms 'body-subject' and 'inter-subjectivity' towards the terms 'corporeity' and 'inter-corporeity' as the 'seer and the seen'. He asks, 'Is my body a thing, is it an idea? It is neither, being the measurant of the things. We will therefore have to recognize an ideality that is not alien to the flesh, that gives it its axes, its depth, its dimensions' (*VI*:152).

In watching the dragon from the aeroplane, the passenger (and others) is in a hermeneutical relation with the dragon, as the passenger interprets the symbol/sign as a cultural artefact. Husserl argues that cultural objects have a 'thereness-for-everyone', or an objective actuality which is also 'my transcendental clue [of] the experienced other'.<sup>128</sup> Merleau-Ponty wrote about the different modes for consciousness to be conscious and the different worlds that we have. The mythical world, just like the landscape of hallucination, is described by Merleau-Ponty as '*having the value of reality*' (*PP*:342; Merleau-Ponty's emphasis) and is thus perceived as real. The role of myth in contemporary cultures is to resolve some local or present tension by recreating the mythical structure (*S*:17).

Ihde's account of the primitive society's myths and industrial society's analogy is given mainly in terms of a mechanical materiality (such as the automaton). Ihde also relates

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<sup>128</sup> Husserl, 1999: 90-92.

*mimeses* back to our interpretation of ourselves. That is, for Ihde, we create a model in our likeness, after which we mould ourselves according to that model by ascribing aspects of the automaton or ‘the other’ to ourselves (ET:14-18).

Ihde refers briefly to the ‘Mauss illusion’ (BT:24) as a factor in distinguishing ‘them’ from ‘us’. The ‘Mauss illusion’ was based on the preconception that, in encountering a new cultural group, the differences between the group and us will stand out, which is not necessarily the case. In other words, according to the ‘Mauss illusion’, such an encounter will inevitably lead to the conception of ‘them and us’ (BT:24), or ‘I-the other’ phenomenon. If we look at Merleau-Ponty’s notion of inter-subjectivity and the distinction the self and object, he first recognises the similarities before we become aware of the differences between myself and other ‘selves’ and ‘things’. For Merleau-Ponty ‘Self-other-things’ is a system that emerges in the layer of existence (PP:57). But Ihde’s general reference to ‘the other’ mainly refers to a technologically textured involvement of humans related in different ways to the non-human or to the material, artefactual aspect of technology, in our engagement with the world as mediated through or by means of these artefacts. Except for situations in which the artefact recedes into our corporal *schema*, the artefacts and technologies with which we directly relate in a hermeneutic or alterity relation (or indirectly to technologies in the background) are ‘other things’. As described in the previous chapter, the technological device or artefact with which we would engage in an interactive manner is perceived as a ‘quasi-other’ in our lifeworld.

Ihde shows us a deeply embedded (‘cross-cultural’) structural invariance in which humans interpret themselves by pointing to ‘something which is “other” than human’ (ET:72). The character of our lifeworld is technologically textured and ‘likened to us’, which shows how deeply the metaphor of the machine ‘dominates contemporary self-interpretation’ (ET:73,74). The machine-metaphor as a way by which reflexive self-interpretation occurs is functionally the same as most primitive reflexive self-interpretations: ‘Our de-animated or mechanized “world” is internalized in a fashion not different from the way archaic humans reflected their more animistic (familiar to them) “world”’ (ET:73,74).

Let us return to the lifeworld and our airport example to look at Merleau-Ponty’s and Ihde’s notions of the ‘other’.

Standing at the check-in counter, the check-in employee tells the passenger to put his bags on the scale. The scale displays 20kg on its light emitting diode (LED) screen. In this



situation, he is in a hermeneutic relation with the digitized scale, as it weighs his bags. He has pre-booked his ticket online, and slides his credit card through a machine, which requires a pin number as identification. He responds accordingly and the machine issues him with a boarding pass. In this situation, the passenger and the e-ticket machine have been in an alterity relation while the payment process and ticket reception have been performed in an interactive manner. Merleau-Ponty's notion of inhabiting the world applies to all our interactions and relations as aiming to fulfil the goals in our inherent bodily intentionally. This includes all of Ihde's human-technology relations.

Our passenger feels uncomfortable as the people standing behind and next to him are uncomfortably close. He has moved a few times to create some distance from the people around him, but to no avail. He finds himself in a situation of cultural difference in spatial perception. Ihde calls this phenomenon macro-perception, or cultural perception. An excellent example of Ihde (and Merleau-Ponty's) notion of cultural habits and cultural perception is the work of ethno-anthropologist Edward T. Hall, who writes that an invariable structure exists in human spatial perception, which he calls 'proxemics'.<sup>129</sup> This structure has four distances, which differ according to cultural acquired habits: intimate, personal, social and public distance.<sup>130</sup> Hall's text bears a closely resemblance to Bourdieu's notion of habitus and Mauss's theory of body technics, although no cross-references between the authors could be found.

To conclude this comparison regarding the 'other' in Merleau-Ponty and Ihde's philosophies, Ihde agrees with Merleau-Ponty's critique of Sartre's description of relations with the 'Other', in that the 'Other' remains an object. Merleau-Ponty believes that 'the objectification of each by the other's gaze' is possible and feels uncomfortable ('unbearable') 'only because it takes the place of possible communication' (PP:361). For Ihde, vision (for instance, watching other persons in a movie or on television) 'becomes...a matter of living as *spectator*' (TP:90) who becomes involved as a participant in the 'world-as-image....the near-distance of the spectacle world has its focus in the elevation of the *immediate*, but an immediate which also remains in a kind of "aesthetic" distance as spectacle....'(TP:91). Here Ihde agrees with Merleau-Ponty when Ihde writes that 'the otherness of the Other is also a *relation* which implicates me and insofar as the anguish of discovering self-objectification is the source of self-creativity....solipsism's roots lie in the

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<sup>129</sup> Cf. Hall, [1966] 1990, Ch. 10 & 11.

<sup>130</sup> Hall's work relates in various ways to Bourdieu's notion of 'habitus' and Mauss' notion of body technics.

“covering over” of that deeper relation'(TP:91) between myself and the other person *in communication*, and thus lifting the veil of the anonymity of the cultural world (cf. PP:348ff,357ff; my emphasis). For Ihde, this communication is already happening in that ‘the *face* of the Other [already] *speaks*’ (TP:91; Ihde's emphasis).

For Ihde, the transformation of perception and experience mediated by technology does not stop with the direct sensory and lived body experience. Technologically mediated experience of the world is reflexive in different ways, as ‘a growing technologically mediated experience of the world reflected back upon such phenomena as human *self-interpretation* and its cultural variants’ (PT:112; Ihde's emphasis). Our lifeworld is ‘technologically textured’ to such a degree that it is no accident that we refer to our bodily functions in a technologically metaphoric way: our hearts are ‘pumps’, brains are ‘wired’, language is ‘pre-programmed’ and so forth (cf. PT:112,113).

Ihde describes his own approach to technology as one that is based on ‘patterned praxes’ (PT:113) that form *Gestalten* which vary over different historical epochs and between cultures. There are thus different *Gestalten* of a basic structure and its different variations to the human experience of technology. The invariant cross-cultural structure is the human-technology relations, especially those which employ our bodily-perceptual skills (PT:113). Ihde also shows us that many of these technologies are culturally embedded, such the history of Western navigational skills (reading maps, instruments, etc.) versus South Pacific navigational skills, which relied on observing bird migratory patterns and routes, the position of stars, etc., thus based on their own bodily positions relative to the available signs in nature. These different modes had different *Gestalten* in which different technologies were employed (PT:113).

Ihde's concept of technology is that technology is always related to human beings. Thus, he says, any situation of ‘human [being(s)] + technology’, depends on more than a mere use function. It includes the latent power of the specific technology and the many possibilities of human involvement with the technology. The different ways in which technologies are culturally embedded also contribute to the *Gestalten* (of the variations to the main structural relation) against the background of different cultural lifeworlds (cf. PT:53,113).

I interpret Ihde's use of the term ‘*Gestalt*’ as operating on two distinctive, yet overlapping levels: ‘*Gestalt*’ is used to visually represent, first, a concept derived from, second, the lifeworld. Ihde's intentional structural variations that depict the kinds of human-

technology relations are given to us in diagrammatic-textual form. For instance, the diagrams ‘Human → technology -(-World)’ and ‘Human(technology) → World’ represent Ihde’s ideas of alterity relations (in that the technological artefact or instrument becomes a ‘quasi’-embodiment of the world or ‘quasi-other’) and embodiment relations (where the artefact becomes a ‘quasi-I’) respectively. Ihde uses the notion of *Gestalt* from a ‘third person perspective’, which is also implied in Merleau-Ponty’s notions of *Gestalt*, however, Merleau-Ponty’s focus in terms of *Gestalt* is that *Gestalt* is a structuring principle of lived corporeal experience, from a first person point of view.

According to my interpreted diagrams, the *Gestalten* of all Ihde’s variations of human-technology relations are circular, hinging around technology. In other words, in my view, Ihde focuses on technology to determine its relations to humans on the one side and the world on the other. In this light, Ihde’s notion of embodiment-relations in terms of perceptual intention and that which is perceived seem symmetrical, albeit on the condition of skilled use. From my other diagrams, the ‘*Gestalt*’ is based on an actual terminus of perception and/or interaction; in other words, praxis *Gestalten*, and not positional *Gestalten*. Merleau-Ponty re-worked the principle of ‘*Gestalt*’ in the conception of one’s body *schema*, as well as in the notion of the *Gestalt* being a structure of how we perceive the unity of things in the world.

The *Gestalt* perception I observe in the passenger in front of me swiping his card and drawing money from an ATM can be looked at in the following way: in Merleau-Ponty’s sense, I visually perceive the person and the machine as a *Gestalt* against the background of the airport. In the same sense, a hermeneutical perceptual act takes place when I look at the diagrams that functionally and positionally denote the relations between humans and technology. While ‘reading’ the diagram in his text, I interpret it as a representation of a ‘real’ situation a specific horizon in the lifeworld. The passenger can only conceive of himself and his interaction with the ATM as a *Gestalt* in reflecting on his experience of drawing money.

To conclude this aspect, Merleau-Ponty and Don Ihde’s notions of ‘*Gestalt*’ agree, although Merleau-Ponty uses the *Gestalt* to describe our body’s innate capacity of perceiving wholes, of one’s own bodily *schema* and the spatiality of one’s own body, as well as all other forms of perceptions as already meaningful, even on the level of sensations. Both philosophers’ formulations of their ideas constitute conceptual and contextual ‘*Gestalten*’: Merleau-Ponty focuses on the human body in perceptual experiences in and of the world,

thus on situational or behavioural *Gestalten*, and Ihde focuses on technology and its relation to human beings, thus both on hermeneutic and praxis *Gestalten*. Both philosophers agree on Husserl's ideas of the intentionality of embodied consciousness.

#### 4.5.1.2 Spatial experience

The passenger at the airport is engaging with the world in the field of his practical, lived space. His orientation and his 'sense' of the spatiality of the building is grounded in his body; thus he will perceive the building as 'huge' in relation to his visual field and the distance he has to walk between different destinations within the building. The sense of height will be perceived in relation to his own bodiliness and personal history of previous spatial experiences. He inhabits the same space - be it the space enveloped or formed by material structures (such as the airport, his office or home) or the space of the expanding valley on a hiking trip, or the experience of height when he stands on the hilltop overlooking the valley; all being part and within the horizon of all horizons. However, the significance and meaning of each place (built space) is based on his past personal history of spatial experiences, as sedimented in his habitual body which he brings, with his perceptual field, into the present, whence the sensible qualities of the spectacle in which he finds himself part (even if he experiences this airport for the first time) are somehow 'known' and 'understood' by virtue of his corporality.

He also 'spatializes' space in light of his present intentional actions in the situation. The stability of the structure of his habitual body allows him to engage skilfully and spontaneously in his inter-subjective environment, by means of his body's capacity to act and move in adaptive and variational (in relation to the habitual structure) modes. Whether it be any new built environment that one experiences, our body is our point of orientation and the capacity to adhere blindly to the 'volumenicity' of space.

Any experience of a new place is a variation of our original and habitual way of interacting with the world; we are already 'accustomed' through our phenomenal body to a myriad of possibilities of engaging and interacting with that which the new building elicits. The 'I can' of my body makes it possible to experience beyond our perceptual field. There are also stable uniform structures in the world which elicit our bodily 'knowing' (*praktoknosia*) and habituality that is open to all our lifeworld experiences (*PP*:141) Therefore, it would be more appropriate to say that we encounter 'different' built spaces, since each new

building still envelops potential practical spaces in different ways, which our bodies engage with as potentialities of experience.

In the same way that perception stylizes individual and social behaviour and ways of experience for us to learn and understand new languages or appreciate art, it enables us to adapt in a skilful manner to different situations. Our body understands new kinds of places and different spatial experiences through our motor and perceptual skills.

Ihde's argument in reference to spatial experience and perception is that it is primordially culturally informed (*ET*:110,111; Ihde, 1986b:128-133). He refers to spatial praxes on microperceptual levels (on the level of the lived body, or 'body one') and macroperceptual levels (or 'body two'). Proximity in different social and interpersonal situations (interpersonal bodily distances in conversation situations, for instance) vary between Middle Eastern (and African) and Western cultures. Navigational praxes (as described earlier) such as reading maps to determine one's orientation relative to the longitudinal and latitudinal lined global 'grid', which is viewed from the perspective of an 'overhead position' (a historically Western cultural praxis) versus applying rational bodily and cognitive skills (as the Pacific islanders do) also indicate cultural perceptual differences (*PT*:113; *ET*:111,112).

Another culturally informed spatial perceptual phenomenon is that of movement. Historically, Pacific islanders (as well as contemporary nomadic tribes in Africa) perceive their vessel (boat or camel) as stationary, relative to their moving environment (the ocean or desert), while the opposite perception (where the vessel is perceived as moving through a stationary environment) of movement occurs in Western culture. Although Ihde's analysis of spatial perception is limited to a few examples of 'habitus' in terms of spatial praxes and perception, his explications of perception itself as polymorphic and 'multi-stable'<sup>131</sup> agree with Merleau-Ponty's notions of the ambiguity of perception. I tend to think of Ihde's explications of spatial perception in a similar way that Merleau-Ponty did in his criticism of psychology (at that time) of remaining in a third person or objective position.

Ihde and Merleau-Ponty's philosophies merge when we look at the human body as the inhabitant of built space, in the following ways. To 'inhabit' implies *habere* ('to have') and 'habit' as the innate bodily skills of our being-in-the-world. A place such as one's house or one's workplace becomes 'lived through': I habitually become accustomed to the smells of

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<sup>131</sup> Ihde gives an extended and detailed description of 'multi-stable' and 'polymorphic' perception in his discussion of the 'Necker Cube' (*ET*: 86-95, 112-114) that complements Merleau-Ponty's explications thereof in *PP* (262-267).



the polished timber, fresh fruit, coffee and cigarette smoke that imbues my books and furniture. As the smell of one's own perfume recedes through constant use and familiarity, so does the specific tactile 'grip' of the small brass cupboard door knobs and so the immediate reaching for the light switch in the dark becomes 'transparent' as a habitual action solicited by (living in) my house.

The familiar sounds of the creaking shutters on a windy evening and the far off sound of a dog barking, even the taste of my house's tap water, the views through my windows that 'enframe' the garden outside as it changes through the seasons, recede to the background of my focal awareness as I work on a current project. Inhabiting my house increases its transparency so that it becomes embodied, and only on rare occasions does it reveal itself to me as part of my corporal scheme. One such occasion is watching a heavy thunderstorm unfold through my study window as the strong wind moves the tree branches back and forth, and I hear the rain slapping against my roof and the window panes. I am in the midst of the storm, yet feeling protected in my warm study as I stand at the window and watch nature act out a few millimetres away.

From an Ihdeian perspective, we can reflect on our relation to our house as lived through space in various ways. In this, the embodiment paradigm plays a primary role in our inhabiting our house. My house and I are involved in a relation of embodiment as I focus on the landscape outside; it recedes and becomes transparent as I watch the neighbours' dogs play across the road. In another sense, the house and I are in an embodiment relation (although Ihde might criticise this as a technological determinist view), in that I become part of the 'embodiment' of my house. In this sense, the artefact embodies the human being, as it acts like a static hammer that withstands the 'blows' of nature.

My home is a place where different kinds of spatial experiences occur. As I lie down and wait for sleep to overtake me, I inhabit a 'world' in-between lived space and that of my dreams. Sometimes, in this half-awake, half-asleep state, the boundaries between my room and the dreamscape become blurred. In those moments, my imagination and creative ideas proliferate in this bodily passive state. The spatialities of my dreams and reality overlap, and I sometimes 're-live' situations and settings of my dreams.

The horizontal body in sleep is a vulnerable physical situation for which our lived-through space (the place of a myriad of automatic and habitual actions) provides comfort and becomes a secure abode. Thus built space becomes a meaningful place and also a temporal



setting for our personal and interpersonal lives to unfold. Our bodily inhabitation of built space is meaningful and significant by virtue of our corporal facticity. We inhabit time just as we inhabit space ‘through the medium of our bodies....the significance of the world originates through our incarnate existence which provides the ground of every deliberate *Sinngebung* [sense-giving]’ (PP:441). The experience and perception of space cannot occur outside time, thus reiterating Merleau-Ponty’s notion of the temporality of all our perceptions and experience. Distance in movement can be described as ‘space is in turn a symbol of time...a moment ago, time was a symbol of space’ (Dufrenne 1979:246).

I find a *lacuna* in Ihde’s analysis of the role that bodily motility and the body’s spatiality in the human-technology relations (other than the embodiment relation between human-technological artefact) play in the technological mediation of perception and experience of our lifeworlds. In this sense, Merleau-Ponty’s descriptions of bodily motility, the spatiality of the body and *Gestalt* perception largely supplement Ihde’s philosophy, insofar as it opens up many possibilities for phenomenological and inter-disciplinary studies. Merleau-Ponty’s elucidation of the *a priori* ‘spatial level’ and ‘visual anchors’ in the world which contribute to one’s spatial experiences in movement enriches Ihde’s work on the perception of space as a cultural *habitus* (that is, macro- or microperception of Euclidean and non-Euclidean spatial practices).

I have not focused on the aesthetic experience<sup>132</sup> of built space as a phenomenological theme in this study. However, I believe that all our perceptions have meaning in some aesthetic *sens*. All our bodily senses work as a unity in perception, according to Merleau-Ponty’s notion of synaesthesia, and perception is a creative act. Merleau-Ponty and Ihde do not exclude the notion of aesthetics from their philosophies, and although marginal, their explications of aesthetics inform our understanding of perception and experience of built space. Allow me only a short detour to present Ihde’s and Merleau-Ponty’s views on aesthetics.

Ihde explicates art and ‘aesthetics’ in two ways: first, as products of technology, and second, as an analogy for phenomenology as a method. In the first instance, Ihde writes that the nature of our contemporary technological epoch, of which the proliferation of visual-imaging technologies (‘high-technology’) is a product, enables various possibilities and ways of seeing the world (TL:173,174). Ihde uses the ‘compound eye’ (the range of

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<sup>132</sup> Cf. Dufrenne (1979:301-329, 362) amongst many other philosophers on aesthetics and aesthetic experience.

image-technologies), as an analogy for our contemporary ‘pluricultural’ (cf. *TL*:164-174). These imaging technologies, such as television and the cinema, and the instruments of scientific investigations, have become embedded in our daily lifeworlds. By means of these technologies we have become accustomed to ‘borrowings’ from different cultures mixed with our own, and their earliest manifestations are revealed in the world of the arts (*TL*:175). Ihde refers to the Cubist movement in European arts and architecture, contemporary music and artefacts such as furniture, and built spaces, which borrowed ‘images’ from primitive cultures throughout the world (*TL*:175). Ihde writes that ‘each of these infusions follows patterns isomorphic with those discerned in technology transfers’ (*TL*:175).

Technology, especially instrumental imaging technology, according to Ihde, has made the erstwhile ‘conceptual’ world of natural science and mathematics visible and thus material (*TL*:185-186). Their technological instruments and technics have been taken up by the arts, since the offshoots of these types of imaging technologies enable the ‘reproducibility’ (for example, photography) and also the ‘productive’ mode of imaging technologies by virtue of the hermeneutic interpretation of the produced and reproduced ‘images’ as art (*TL*:186,187).

In his descriptions, Ihde presents the arts as a technological-instrumental phenomenon that is characteristic to ‘all shapes of high-technology societies’. The perceptual experiences of the lifeworld made possible by these technologies is presented to us on a ‘body two’ scale as a macroperceptual, multi-cultural phenomenon (*TL*:177,190). In other words, all our lifeworld experiences, including aesthetic experiences, are characteristically unique to our postmodern epoch, that is, as technologically textured.

Although Ihde does not explicitly describe the aesthetic experiences in human-technology relations, technological artefacts transcend their sole purpose as mere use-objects and thus go beyond being singular purpose objects, which implies that there are aesthetic aspects to the artefact, as well as creativity in human interpretations and experiences of a technological artefact. However, ‘industrial tools, propellers, automobile bodies’ are not works of art, because to ‘geometrize is not necessarily to aestheticize’ (Dufrenne, 1979:305).

In the second instance, Ihde holds phenomenological rationality to be ‘artful’ and art as latently ‘phenomenological’ (*EP*:82). For Ihde, the imaginative free variation applied in the





phenomenological reduction is similar to the arts that ‘actually exercise the practice of variational discovery. Through the possible the actual is revealed’ (EP:83). The phenomenological reduction gives rise to the ‘intuition of essences’ (the eidetic reduction), which allows one to apply this ‘systematic use of variational discovery’ (EP:83). Husserl already noticed the possibilities of applying the free variational method to all areas of experience - as Ihde paraphrases from Husserl’s *Ideen*: ‘Freedom in the investigation of essences necessarily requires that one operate on the plane of the imagination’ (EP:85).

Ihde concludes with a ‘deconstruction’ of Picasso’s cubist painting ‘Mademoiselles’ in which the surfaces of the figures are broken up in disjunctive planes and colours which capture the essential features of the females (as he experienced them in reality) (EP:96-97). Ihde agrees with Merleau-Ponty’s view on the painter’s perception of the world (explicated in Chapter 2 of this study), but in his explications, Merleau-Ponty emphasizes that perception is already an aesthetic experience, that perception ‘stylizes’. Aesthetic experience is entrenched in Merleau-Ponty’s philosophy as he describes the body as an expressive space in making music; in his descriptions of language, both spoken and written, in poetry and literature; in his descriptions of the painter’s perception techniques (especially those of Cézanne). For Merleau-Ponty, the ways of the body’s being in the inter-subjective world is a work of art, like a song or a work in prose. Again, Merleau-Ponty’s explications of aesthetic experience are much richer and deeper than Ihde’s. Whereas Ihde ‘compartmentalizes’ aesthetics, Merleau-Ponty’s philosophy is inherently an aesthetic philosophy in which everyone and everything is of the ‘same stuff’ (‘flesh’).

An area which I find lacking in Ihde’s explications of technology in our lifeworld and our relations to it, is the commoditisation of artefacts as objects of art endowed with trade value. Houses and offices are built in view of future profit; built space has become another commodity, in the same way that art and ‘aesthetic’ artefacts are sold at exorbitant rates. The question then arises what the ‘real’ value of art in contemporary Western society is. There is a drive to possess things, and sometimes I wonder whether the owner’s pleasure of experiencing the artefact in his or her lounge derives from the aesthetic qualities of the work or from displaying capital wealth.

The symbolic role of technological artefacts is an area that needs further explication in Ihde’s structural relations. Since the symbolic, aesthetic and other values accorded to technological artefacts are culturally informed, these aspects influence and transform our perceptions of the lifeworld to greater or lesser extents, as well as our perceptions of



technology and how we relate to it. The meaning of a house for a real estate speculator is different from the value of the same house to a family that has inhabited that house for decades. The speculator might perceive it as an object the value of which lies in its composition, the materials it was built from and its geographical setting, whereas the value of the home as a family abode transcends the present monetary value in favour of experiences, a history and the memories 'inscribed' in its materiality and being. I think that chiasmic experience and the reversibility of the flesh are lived in the aesthetic experience of being at home, that is, at home in the world.

### 4.3 Theory

If I had the opportunity to converse with Merleau-Ponty and Ihde 'in the flesh', I would ask both philosophers: what is the relevance of your philosophy for us today? Moreover, what is the status of philosophy and what is our role(s) as philosophers in the twenty-first century Western world? Why was Merleau-Ponty's *PP* was not entitled 'a phenomenology of existence'? I would also suggest that Ihde's explications of technology be written with Merleau-Ponty for an integrated approach to inhabiting our technologically textured lifeworlds.

Ihde's pragmatic approach makes his texts more easily accessible, whereas Merleau-Ponty's style of making his thoughts visible is analogous to perception itself: it is ambiguous and not immediately accessible and clear. Merleau-Ponty's texts also require intense reflection and re-reading. In fact, one should spend enough time to inhabit his texts and thoughts. I believe that it requires a very sensitive and sensible reader (and one proficient in French) to understand and grasp the underlying nuances in Merleau-Ponty's writing thoroughly. The fact that Ihde is a contemporary English-speaking philosopher contributes to my grasping his ideas more quickly, and this is assisted by the fact that the lifeworld that he refers to is explicated by means of examples and anecdotes in which the 'latest' technological artefacts with their concomitant terminology immediately seem like the familiar horizon of my own lifeworld. However, although Ihde's texts at first glance seem straight-forward, they are laden with complexities and, as with Merleau-Ponty's work, Ihde's work still requires further research from me.

Let me conclude this research with a summary of my thoughts on the body as inhabitant of built space. To 'dwell', to find my 'abode' or to inhabit means that I have a comprehensive grasp of my environment, including other people and the objects or instruments I am in

relation with; it is as if my engagement with my world is like a 'second nature' - comfortable and not requiring intense effort. To 'inhabit' has the significance of 'pausing' to have enough freedom to re-organise and re-structure one's thoughts, attitudes, and comportment. I believe there are various levels of inhabiting, which can be experienced through the 'synthesis of transition', to use Husserl and Merleau-Ponty's term. However, this is not a 'passive' event, since inhabiting requires the irreducible acquisitions of habits which are layered on top of one another until one 'achieves' a quantitatively and qualitatively proficient level of body-soul 'technicity' that is called 'inhabitancy'.

My body and that of others, intercorporeity intertwined with the world, are the conditions for my meaningful existence. Moreover, the natural world to which I primordially belong and in which I find my primordial anchorage, is the foundation (like the pre-established spatial level, or, to use layman's terms, the keyboard of a piano) onto which the human and cultural world is layered as the music is made. Every thought and every kind of perception that I have finds its unity and meaning in my body, by which and through which I have a world.

Inhabiting allows one to 'be', to exist. But this mode of existence lies between thought and the thing. Inhabiting allows all forms spaces to be experienced as 'lived'; the space of myth, of dreams, of the night, are just as part of me as the practical and geometrical space. All kinds of spaces - isotropic or homogenous space - can have meaning for me as an orientated being; firstly, as implanted in the natural world, and secondly, by means of my being-orientated-in-the-world. For me, as a trained architect, the use of geometry and representing built space as an abstracted structure of patterns and symbols are cultural acquisitions that have become a habitus on a social and individual level. Drawings of buildings are representations of physical built spaces as artefacts that are (to be) inhabited. The acquisition of habit plays an important role, insofar as the novice or first year student starts by consciously relating his or her embodied perception and personal history of lived experiences, for instance, of a door in a room, to the symbol of a door and lines that denote the walls that demarcate the extremities of the room. This process could be compared to learning a new language. (I owe the idea of relating drawings to language as *langue* in *PP* to Dr Wolff).

*Langue* in the sense that Merleau-Ponty applies to it means language as a structure prior to the written word: '[T]o name a thing is to tear oneself away from its individual and unique characteristics to see it as representative of an essence or a category...language...[is]

conditioned by thought [and not by the verbal image]' (PP:176). Merleau-Ponty shows us that the word has meaning. If I look at an object (say, a pen), I do not first subsume it under some concept or category, nor do I link the object to the frequent association of its name ('pen'); the word 'pen' has meaning, and 'by imposing [the word] on the object, I am conscious of reaching that object' (PP:177). The word is thus the essence of the thing, which, for Merleau-Ponty 'resides on the same footing as its colour and its form [such as a shiny black pen]... [in authentic speech] the word, far from being the mere sign of objects and meanings, inhabits things and is the vehicle of meaning' (PP:178; cf. Section 2.2.2.2 §7,11).

In a foreign country, I begin to understand the meaning of words 'through their place in a context of action' (PP:179). Words start to make sense to me when their conceptual meaning is 'deduc[ed] from a *gestural meaning*' (PP:179; Merleau-Ponty's emphasis). Similarly, I learn to make architectural drawings, because it is by showing the symbol's relation to our lived experience of the object (walls, doors for instance) that this process becomes habituated to such an extent that the drawings themselves take on a life of their own; as if we inhabit it, similar to inhabiting language. Merleau-Ponty writes that inhabiting language and expression have 'an existential meaning beneath the conceptual meaning of the words' (PP:182). Similarly, the drawing has an existential meaning beneath the meanings of the drawing line types, conventions and symbols, so that 'the process of expression [drawing plans] brings its meaning into existence' (PP:182; see Section 2.4.2 §6); it brings us to a new level of experience, insofar as the drawings start coming to life for those who understand the conventions and have acquired the habit of communicating in this 'language'. Thus architectural drawings and their conventions are enculturated through habit.

Architectural plans and drawings can become a means of communication at a level of representation that is easily understandable. A typical example of this is the sale of some 'styles' of buildings from plans, such as 'Tuscan' style houses (what Ihde calls 'borrowed images'). Firstly, the 'image' is sold; that is, its representation at a symbolic level that is readily accessible (and acceptable) to all has acquired a certain value. Secondly, this level of representation as an 'image' loses its primary meaning, as the plan itself is not thought of in terms of a bodily lived experience of space. Instead, the image itself has secondary meaning, since the process of expression on the side of the architect has lost its primary significance, in which the architect may have 'forgotten' its implications in terms of

corporeal spatial experience - otherwise the architect would realise that the ‘borrowed image’ in real life is both inappropriate in terms of our local climate, and in terms of our individual and cultural spatial practices (*habitus*). Thus, in a sense, architecture practised at this level is reduced to popular ‘images’ which easily turn into clichés.

We must remember that space is created and activated by the dynamic interaction of our body and the world. Our body creates and inhabits space and time. When I perceive something, my body sets an optimum level for itself for meaningful experiences and to obtain the ‘best’ perceptual ‘grip’ on the world. The pre-established spatial level is not constituted by my body; rather, my being-in-the-world has endowed me with a physical and perceptual history. Therefore my body possesses the power to adopt an optimum way for it to experience the world, with or without technological mediation. The pre-existing spatial level onto which I project present and future spatial levels is a ‘norm’ (a given), as much as the natural world is the ‘norm’ (although it is sometimes very inconspicuous, and is mostly taken for granted) which has been clouded by our theoretical constructions, the sciences, technology and so forth.

Any building is a technological artefact. It may be a work of art; it may invoke aesthetic feelings, or emotions which might affect my way of inhabiting the built space. But I will always (excluding exceptional cases, illness and handicaps) have that anonymous experience of *praktoknosia*, like a memory that is stored in each cell of my body-soul; a memory brought to life by moving my phenomenal body. Therefore, when I enter a new shopping centre for the first time, or any other built space in any cultural setting for that matter, I ‘understand’ the spaces and their interrelations and the way that I move through them, because, beneath this constructed space is my primordial temporal and spatial existence anchored in the natural world. I am also, like any other healthy human being, in specific relations with technological artefacts, irrespective of the culture, social or geographical setting in which the artefact is used. It might be necessary to acquire techniques or adapt to a certain cultural *habitus* in order to deal with things and others in certain ways. However, a different *habitus* would not change the basic structure of the human-technology-world relations. Finally, our existence is temporal and spatial.

In conclusion: we perceive, experience and relate differently to the natural world than to technological artefacts. Our body is the ‘nexus’ of all of our perceptions, as well as the ‘place’ where meaning and significance originate in terms of our perceptions. What we have learnt from Ihde and Merleau-Ponty is that all our experiences and perceptions occur

at different levels. It is only in the mythical world and in the world of the infant that subject and object are not differentiated, which means that developed natural and normal perception varies from the pre-self-conscious level to the level of ‘having at a distance’, in order to be involved in hermeneutic and alterity relations with technological artefacts as a means of obtaining knowledge through our mediated perceptions of the world. Merleau-Ponty’s phenomenology of the body is a reminder to us not to dismiss ‘lived experience’ and embodied perception in our technologically textured lifeworld. He reminds us not to forget that beneath our cultural worlds, there is the natural (primordial) world which is intertwined with our body, or, as Merleau-Ponty puts it, the natural world to which our body ‘cleaves’ and which we so easily take for granted.

#### 4.4 Implications for architectural education

The Merleau-Ponty-Ihde pairing provides a basis for a combination of theory and praxis in architectural education. I suggest the following approach:

- lectures/courses on Phenomenology, its history and methods;
- student assignments: Phenomenological explications of everyday experiences; for instance, reflecting on and doing a phenomenological description of students’ own habitual actions, such as driving or walking to campus, their experience of dining in a public setting versus dining on their own, reflecting on and describing depth; describing their experiences of climbing different staircases; describing their perceptions of different coloured textures; reflecting on the processes of drawing with pencils or ink, sketching on different textured paper and so forth;
- praxis:
  - a series of short courses on Merleau-Ponty’s *PP*: the spatiality of one’s own body and motility - re-creating experiments; demonstrating and showing the differences between abstract and concrete space; how the senses communicate (how visual and tactile senses link up in the experience of a new spatial level), *Gestalt* perception;
  - a lecture series on Don Ihde’s *TP*: demonstrating different human-technology-world relations, with assignments on feedback on students’ lived experiences of these structural variations and research - observing different social and cultural habituses, and relating them to Ihde’s structural variations within different settings;



- painting settings and situations, reading poetry, attending music performances or playing an instrument and reflecting on it.

The reason for these suggestions is that the body creates space and time. Understanding human perception and the experience of one's own body, understanding the freedom that the temporal structures of the body and world allow for our present and future spontaneity and that habits give unity to our experiences as well as understanding the anthropological structures that phenomenology lays claim to without objectifying the human body are vital principles for designing buildings fit for human inhabitation.

We have to realize and design buildings for the different structural variations of human-technology relations, that is, to accommodate human-technology interaction with the concomitant social and cultural habitus and body technics. As designers we have to anticipate the structural relations in the construction processes in terms of time and process planning. We have to know that built spaces can enhance the 'optimum' fields of sense experiences, by means of coloured textures, different surfaces that can refract or reflect lighting as a focus or background, providing an enhanced perceptual field for music performances, in designing exhibition spaces, and so forth. If we understand how human beings inhabit the world, that the other inhabits the same natural world as I do, that the cultural world is a projected world around us, how the gaze 'inhabits' an object; if we are filled with 'wonder' when we learn to see instead of look, we are better equipped to create built spaces for human inhabitation.



## Chapter 5: Concluding remarks

Merleau-Ponty writes: ‘How would the painter or poet express anything other than his encounter with the world?’ (S:56). I think this is the question that the architect and student in architecture should ask when thinking about architecture and about designing spaces to be built. I started this research to gain a better understanding of the problems that students of architecture and clients experience when trying to reconcile or ‘translate’ represented space and lived space, to negotiate between ‘flat’ projections on paper and our lifeworld. The main question for me, in retrospect, was what the common factor in instrumental thinking in designing and representing those ideas on paper and lived experience is that makes this translation difficult. Let us consider the process and content of this inquiry.

Firstly, I presented the problem in the light of Maurice Merleau-Ponty and Don Ihde’s philosophies. I looked at the work of Merleau-Ponty because he is still known as *the* philosopher of the human body and perception, and at Ihde because he developed a structural model on the different relations between humans and technological artefacts in our engagements with and in the lifeworld. Both philosophers’ studies developed from and expanded on Husserl’s phenomenology. They were both, to different degrees, influenced by the work of Heidegger. Both philosophers’ work was applicable to my question, and the combination of their philosophies was a good starting point to discover how the human body inhabits built space.

Secondly, I presented each philosopher in his historical and intellectual context, discussing the main influences on and development of their own concepts. In Chapters 2 and 3, I presented their ideas separately in a thematic way in order to construct a manner in which I could uncover differences and similarities between Merleau-Ponty and Ihde’s philosophies. I was able to do so by looking at built space from different perspectives and by reflecting on lived experiences in different social and cultural lifeworlds. This enabled me to show to the reader the current relevance of both philosophers’ work in view of the body as an inhabitant of built space.

Although I have been able to throw new light on our experience and perception of built space, I realize that I have only started to scratch the surface of this inquiry. So many more



questions have come to mind in my endeavour to gain an understanding in this inquiry, leaving me with the knowledge that, in future, I will need to delve deeper and continue my research. Some areas that come to mind for future research are the work of Paul Virilio and the philosophical study of how we ‘live’ relative time and space. Another area for future research is to ‘do’ a phenomenology of the acts and process of building and the relations between artisanship and mechanical and instrumental production.

A natural outflow of this study is also an investigation into the ethical aspects of designing, building and co-existing in our technical, social, political and economic milieu. Apart from those aspects mentioned in the body of this text that need further research, is the last, but not least, area for future research on the role of anthropometrics in aesthetic experience.



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