

The aesthetics of form knowledge: Embodied knowledge through materialization

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Figure 1. The hand as starting point for modelling a *Handheld Object*. (photo: Richard Burkett, 2013).

Abstract

Embodied knowledge of form and form processes in clay is localized and described in this paper. The role of the body and material for the understanding of form are discussed from an inside perspective. My own experiences from modelling connect with reflections from other ceramicists, describing their experiences working with clay. With this practice-based research I seek to describe an *aesthetics of form knowledge*, in the sense of knowledge that comes to us through the senses.

Embodied form knowledge will always be subjective. Concepts from phenomenology and material agency combine in a theoretical framework to propose and give access to professional subjective experiences as knowledge in a more general sense. The phenomenological concepts

are valuable in the way that they give structure and perspective to the findings of the empirical material. The plasticity of the clay is experienced as inherent movement within the form processes. It is argued here that clay itself has agency, meaning that it reacts and responds to the body's movements; the form processes in clay are therefore described as a dialogue between body and material.

The paper is part of my PhD project: *Three-dimensional form, positive and negative form exploration: Interrelation between form, body and movement*. The aim of this research is to imbue the subjective knowledge about form with a more general meaning, in order for it to serve as fundamental to the development of an aesthetic body-based theory of form.

KEYWORDS: Form process, embodied knowledge, material agency, modelling, phenomenological body, plasticity, positive and negative form, convex and concave form

Introduction

The complexity of three-dimensional form can never be understood completely from purely abstract concepts. It is only when abstract knowledge about form connects with experience that we achieve form knowledge as a whole. When modelling an object with my hands I sense the interrelation between form and body through the clay. Every movement is directly connected to my body and gradually my experiences of form develop into embodied knowledge. In this paper, form is defined both as concrete finished forms and as forms that evolve in form processes. Clay is the material chosen to exemplify *material agency*. I discuss both embodied knowledge of form and the impact clay has for the understanding of form through materialization. From that perspective, the research question is:

- How can the interaction among form, body and material (here clay) in form processes articulate three-dimensional form knowledge?

The title, *The aesthetics of form knowledge*, refers to how we perceive form here and now with our sensing body and how this experience influences our understanding of form generally. Edmund Husserl distinguishes between *aestheta* and the *aesthetic body*. By *aestheta* Husserl refers to material, or "...things as such in their aesthetic structure" (Husserl, 1989, p. 55). However, the features of things as such, change when they are experienced in different light or whether are near or distant. This example from Husserl refers to an experience from visual perception; to expand the understanding of perception and embodied knowledge, this paper relies on the notion of haptic perception.

The paper is part of my artistic PhD project, *Three-dimensional form, positive and negative form exploration: Interrelation between form, body and movement*. The empirical material described in Section 3 is from my investigations of the form of modelled clay objects created at the Department of Ceramics at San Diego State University between August 2012 and June 2013. Investigating three-dimensional form in a phenomenological context requires that the knowledge of form develop from experience. The interior perspectives are put forward here and the here-and-now experiences are registered and connected to a theoretical framework of four phenomenological concepts of the sensing body: the *zero-point*, *Leib*, *body-scheme*, *kinesthetic* and *animated organism*.

(Husserl, 1998; Merleau-Ponty, 2012; Thøgersen, 2004; Tin, 2010). By using the five concepts to analyse form as embodied knowledge in form processes, movements are emphasised, which gives a more dynamic understanding of form. The hand is defined as form, tool and agent and given a certain role and perspective, from which point form as action is studied. *The grip as a core-point* is the primary concept of my own work and refers to both three-dimensional orientation and a starting point for form explorations. My own experiences of form and form processes in clay are described here, together with reflections by the three ceramicists Lambros Malafouris, Paulus Berensohn and Eva Hild. We all have a strong awareness of the body during our work and sense form from movements in both our bodies and the plastic clay. Our experiences from the making as *material agency* are understood as knowledge that gives both the material and the body an active role in form processes. The various subjective experiences of professional knowledge articulate here a *common voice* for experiences from the making itself. All data from my own and the other's experiences from form processes are documented as reflections in- and from-action, including literature and personal dialogues. Together with photos of form and the form processes, these are the data, the empirical material for the research. The photos are crucial to giving access to the subject matter.

In creative form processes in clay, there are no clear distinctions between subject and object. The roles of the body and the material are interweaved. To discuss personal reflections from the various form processes from a phenomenological approach provides a wider perspective on the making. The data represent interpretative experiences, which later in my research will be developed as fundamental to a practice-based form theory that does not aim to provide precise and clinical answers but instead to give a deeper understanding of form and directions for practice.

1.0 The phenomenological body

From a phenomenological perspective, it is important to free oneself from what one already knows, in order to perceive without the preconceptions that render here-and-now experiences obscure. By problematizing the sensing body, perception is highly and appropriately emphasized. It is not only from visual perception that we perceive forms; the whole sensing body interacts with and registers forms to which we relate. 'Aesthetic' refers here to the knowledge that comes to us from the senses and is therefore directly connected to perception. By this approach the experiencing body is emphasized and the aesthetic is not limited to beauty.

The theoretical framework for the research is from the phenomenological concepts: *animated organism*, *zero-point*, *Leib*, *body-scheme* and *kinesthetic*, all of which describe the active body in time and space. The dancer and researcher Maxine Sheets-Johnstone argues in her article "The primacy of movement" for kinesthetic consciousness as the basic for all perception. (Sheets-Johnstone, 1999). She refers to Husserl's concept of "animated organism," which describes all living organisms and where the human is part of a more fundamental idea of everything that is alive and experienced. Movement is something in itself, *sui generis* and prior to everything else: "in the beginning, after all, we do not try to move, think of movement possibilities, or put ourselves to the task of moving. We come straightaway moving into the world; we are precisely not stillborn. In this respect, primal movement is like primal sensibility: it is simply there"

(Sheets-Johnstone, 1999, p. 136). I understand this as a concept that frees us from the impulse or burden of controlling our actions. To take part of movements in actions one has to *go with the flow*.

A crucial concept for three-dimensional perception is how the body orients itself in relation to form in space. Husserl describe the body as:

... the bearer of the zero-point of orientation, the bearer of the here and now, out of which the pure Ego intuits space and the whole world of the senses. Thus, each thing that appears has *eo ipso* an orienting relation to the Body and this refers not only to what actually appears but to each thing that is supposed to be able to appear (Husserl. 1998, p. 56).

To understand the *aesthetic interrelation* between form and body, as well as between material and body, it is crucial to understand Husserl's concept *Leib*, which means "the living body." *Leib* differs from the term *Körper* which means the physical body as an object that can be moved only mechanically, while *Leib* has its own will and is free to move itself (Tin 2010, ref. *Ideen* II, p. 122). It is first through the living body that we interact with our environment.

All the body's movements and tactile experiences from touching a form or from working with form processes register in our bodies which results in bodily awareness of forms, and evolving forms. The concept *kinesthesia* means the sensing body's movements. This is an important concept in phenomenology, while that does not reduce the body "to a passive receiver of stimuli from the environment"... "It is because of the body's spontaneous movements I can situate material things in the room in my perception." (Thøgersen, 2004, p.86). Embodied knowledge, grounded on perception develops therefore from the body's action and interaction with the environment.

Maurice Merleau-Ponty describe spatiality both as *positional* and *situational*. Experiences are always situated and relate to specific tasks and registered in our bodies as actions. Originally, the meaning of the concept *body-scheme* was "a summary of our bodily experiences" while Merleau-Ponty uses the original Greek definition of *scheme* meaning an approach or a view, and *body-scheme* is then understood more precisely as "a bodily view to a specific situation" (Thøgersen, 2004, p111). It also means that when the body register a form, it does not only register it in its specific environment, towards a background. The body takes part in the form here and now. According to Merleau-Ponty..."my body is polarized by its tasks, insofar as it exists toward them, insofar as it coils up upon itself in order to reach the goal, and the *body-scheme* is, in the end a manner of expressing that my body is in and toward the world"(Merleau-Ponty, 2012, p. 102).

To explore embodied knowledge in form processes, the phenomenological concepts above are vital, for they give an understanding of the body's interrelation to its surroundings. Merleau-Ponty describes the spatial, sensing body, as *it inhabits the world and time* (Thøgersen, 2004, p. 113). Experiences from any given time at any place during the movements in form processes become embodied experiences.

2.0 Material agency: Interaction between body and form through a material

As a ceramicist, I understand form *through* and *with* my body. The experiences from various forming processes have given me a nuanced sensation for three-dimensional forms in growth, an awareness of the interrelationship between form and body through the plastic clay. The role of the clay in the form process is central to my research. The plasticity in clay works as a driving force in my work. To explore form through the modelling hands, by touch and movements, provides embodied experiences of various curved planes and form-joints. This haptic information from action is registered in the *body-scheme*. From my experiences a sensitivity for form as curves, form-joints, and the like is developed and remains as traces within the body.

Three other ceramic artists—Paulus Berensohn, Eva Hild and Lambros Malafouris—have had a tremendous impact on how I understand the role of the body and the clay in form processes. In the modelling process, the body and the clay interact, and it is more like a dialogue between the clay and the ceramicist. Berensohn has background as a dancer, a skill he obviously uses in his work. In the reflections in his book *Finding one's way with clay*, he describes the inherent movement in the plastic clay as well as how the clay is part of the rhythm and movements in modelling (Berensohn, 1987). He transforms his embodied knowledge and consciousness about the interrelationship among body, form and movement from dance into forms. Berensohn's approach to modelling is a combination of clear frameworks alternating with intuitive ways of creating forms. His exercises give the experience of rhythm in the making and the pinching methods make the body take part in the movements as the form unfolds. They are exercises that make me more sensitive and able to push and stretch the clay more easily, *to go with the flow*. Another concept he presents is to work with the clay while blindfolded, which has made me change focus from exercising visual control to developing haptic awareness.

Berensohn introduces both systematic and improvising methods, which for me is a dynamic way to alternate between control and exploration. The intention of Berensohn's more experimental approaches is to challenge and change the habitual craft patterns and to use the body and the clay in new ways to go beyond what is familiar. Berenson described this as follow: "it is times like this that I feel the need to change the rhythm and touch of my hands on the clay,... by doing a simple related exercise that might call upon other qualities and produce insight" (Berensohn, 1987, p. 80-89).

In an October-November 2013 e-mail correspondence with Eva Hild about form and form processes in clay, she describes how her background as a physiotherapist has an impact on the way she works and how she experiences the form process. According to her, she is a *carrier* of her professional knowledge from physiotherapy, which she uses in her sculptural work. Hild refers to her embodied knowledge on both a psychological and a physical level. She activates that particular embodied knowledge mentally for her craft, and experiences forms within her body both as internal and external. She describes the sculptural clay form as *another body*.

In the article "At the potter's wheel: An argument for material agency," Lambros Malafouris describes his experiences in pottery, in working on the wheel (Malafouris, 2008). For him, pottery is a way to think through clay, which is a material that responds during the making. He describes it as a dynamic, complete action where the potter and the clay *meet* in an idea in which body and material take part. With this phenomenological approach, he sees that the body and the material are two interactive phenomena, both with their own agency. In the article the term material agency is described as a materialization process which has no clear distinction between where, who and what; we cannot know if it is the body or the material that starts, continues or

concludes the process. The condition of the potter is described as if within the process itself. There is actually an interaction between the potter and the clay rather than a causal relationship with the potter's intention of creating a form as some clearly-directed, one-way action. Malafouris discusses whether it is the potter that initiates the action in throwing clay on a wheel, and if the potter alone is "the author of the act" (Malafouris, 2008, p. 21). Although humans are the only animals who can refer to themselves as initiating an action, that does not mean that humans alone cause an action. He argues against causality in the process of pottery, and describes it rather as a *reaction* between the potter and the clay. The clay unfolds through the phenomenological body. To throw clay on a wheel is an open process where the distinction between subject and object is removed. The plasticity of the clay engages the potter. As I understand Malafouris, the clay *opens up* for the potter to enter the process and both the clay and the potter are materially engaged. Malafouris gives the material clay a certain role and character: it is "one of the earliest truly neuro-compatible materials in the history of humanity. Neuro-compatible here refers to material that affords the flow of noetic activity beyond skin and skull bridging neural and cultural plasticity" (Malafouris, 2008, p. 22)

According to Berensohn it is important to enter the material and to participate during the forming process. For him modelling is as much a mental exercise as a technical skill. The exercises of pinching techniques that he introduces have provided me vast experience in how to utilize the plasticity inherent in clay (Berensohn, 1987). His methods for modelling involve the material and invite an interplay between the clay-practitioner and the clay. They show an approach far beyond merely technical issues. The concepts for modelling forms illustrate how the interactive modelling process erases the distinction between the body as subject and the form as object. He describes the interplay between the body and material in forming as a meeting between body (finger), clay and the "mind's eye... the important task here is at the place where your thumb or whatever finger or fingers you are working with meets the clay. Bring your mind's eye and all your inner focus there for as long as you can" (Berensohn, 1987, p. 40). Malafouris describes similar experiences at the potter's wheel:

If human agency is, the material agency is, there is no way that human and material agency can be disentangled. Or else, while agency and intentionality may not be properties of things, they are not properties of humans either: they are properties of material-engagement, that is, of the gray zone where brain, body and culture conflate (Malafouris, 2008, p. 22).

As a ceramicist, I can relate to their approaches, how they articulate the actual action as a fusion of body and mind through movement in the form process.

2.1 Plasticity in clay, body and form

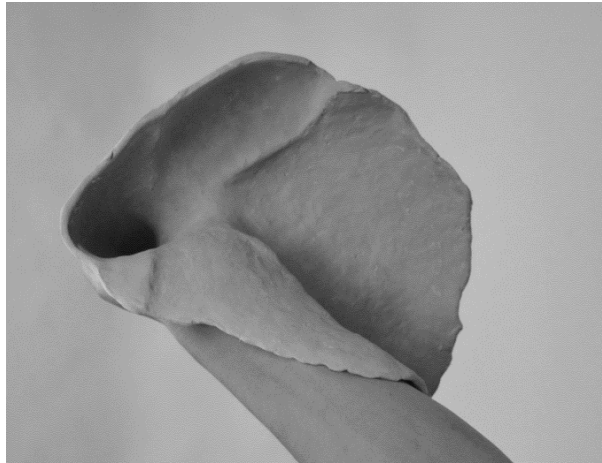


Figure 2: From a form process of modelling a body-shell (photo Ryan Gray 2013).

Clay is used to investigate the interrelationship among form, body and movement in form processes, and the plasticity of the clay is essential. The plastic clay seems for me to be alive, a dense, moist pliable material. I sense the plasticity in the clay and through the forms that are evolving. It makes my body feel close to the form. Plasticity is a character within the material that triggers movements. The clay gives in to pressure, but simultaneously offers resistance to my movements with a kind of gravity as a positive resistance during the forming process. To work with the clay is about balancing the dense and the pliable in addition to *finding* movement and rhythm in the making. The body transfers into the material and the clay responds to each and every little pressure. I experience the process rather as movements between the clay and me than as my initiating *the act* (Malafouris, 2008, p. 21). It is as if the movements of the body are released by the plasticity in the clay. From the e-mail- correspondence with Eva Hild, she describes plasticity as:

...flexible, shapeable, to a certain degree confirmable. To be able to change a form, kind of a movement and flexibility. It is certainly not elastic (chewing gum, rubber band) or generally shapeable (butter or wax). A plastic material is supposed to stay together and have an inherent power (toughness) that can be transformed and then to keep its form. ...The plasticity is essential for what I do. An organic growth in a material that withstands transformation (e-mail, November the 27. 2013).



Figure 3: Eva Hild in the studio (photo Anna Sigge, 2012). *Loop 714*, by Eva Hild (photo Eva Hild, 2008) www.evahild.com

3.0 The grip as a core point for form exploration: *Hand-Sketches* as spatial orientation



Figure 4: *Hand-Sketch*, illustrating how the grip as a core point is used as concept and tool for three-dimensional orientation and sculptural expression (photo Astrid Heimer 2012).

To create a spatial three-dimensional form takes more than creating depth in the form itself. A three-dimensional form has to connect, get a grip on its surroundings. An interplay between positive and negative form must take place and be sensed as unfolding in all directions. The concept of *the grip as a core point* evolved from working with modelling objects, and finding my forms not being three-dimensional enough, from aiming for the clay body to *free* itself from its mass. The isolation of mass was locked up in the form rather than activated in space.

The grip as a core point is the main concept for the three form series *Hand-Sketches*, *Handheld Objects* and *Body-Shell* that are described in this section. The grip, as composition and structure of the hand, is set as a core point, a place and form of departure that connects the clay and me during the modelling form processes. The grip is also a concept for the active hand. As the core point, the grip is already *charged* with the force from the active hand, which is released with the plastic clay. As the grip enters the clay as an imprint, the clay simultaneously presses outwards to fill all the negative space of the grip; a *double directed action* begins.

The plastic clay engages my body; it gives me a feeling of being present within the form process. I orient the form during the form process, based on myself as form and movement. The experience of working with the *Hand-Sketches* is *more* three-dimensional in the way the form is spreading outwards in different directions. The photos in Figures 4 and 5 illustrate the connection between hand and object in a *Hand-Sketch*; they show how different positions of the hand give various visual impressions described as *dynamically outwards* in many directions (Figure 4), *towards my body* and *diagonally outwards*. My sensed experiences are both visual and haptic. For the reader of this or any paper the visual information is of course the most obvious. Not everybody has or realistically can have the particular experience from the moving, plastic clay, but anyone can relate physically to the grip.

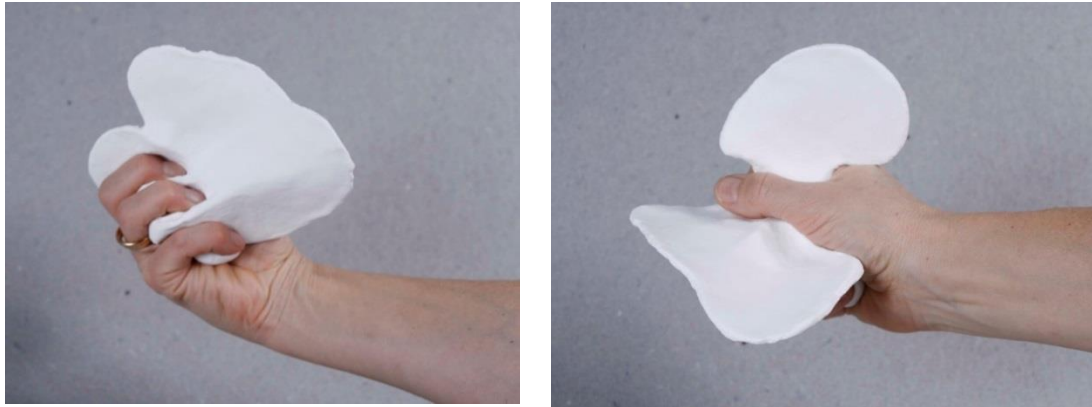


Figure 5: Investigation of a *Hand-Sketch*; the two photos show the same object, but from different angles (photos Astrid Heimer 2012).

3.1 The hand as positive and negative form: *Handheld Objects*



Figure 6: Photos of *Handheld Objects*: from the form process and the finished object. (photos Richard Burkett (left) Astrid Heimer (right) 2013)

“As a person walks through the sand, footprints show their evidence of their presence. The action of walking is recorded.” Audrey Molinare (personal communication in April 2013)

I take part in form processes with my body as positive and negative form; the positive form is the concrete physical mass, while the negative form is the demarcated void in relation to the mass (Paul Zelanski, 1987). Every form, pressed into wet, plastic clay, remains as an imprint. In my form investigation of positive and negative in *Handheld Objects*, the grip is constant. The photo to the right in Figure 4 shows the negative form of the grip as an imprint in the clay. The imprint is compared with a footprint in the sand, where the negative form of the grip versus the foot creates a negative space in the material. Both imprints are signs of human movements. Within the forms, there is something left behind from both form and movement. The forms are abstract, organic rolling forms that seem familiar as universal expressions having a connection with the body. The imprint is static, a frozen movement of the hand as action. This form as movement is also stored in my body-scheme. The negative form of the grip in the clay form is not the concrete hand. It gives a vague image of something familiar, yet not easy to explain.

3.2 The moving wall: The body in interaction between convex and concave form in *Body-Shell*

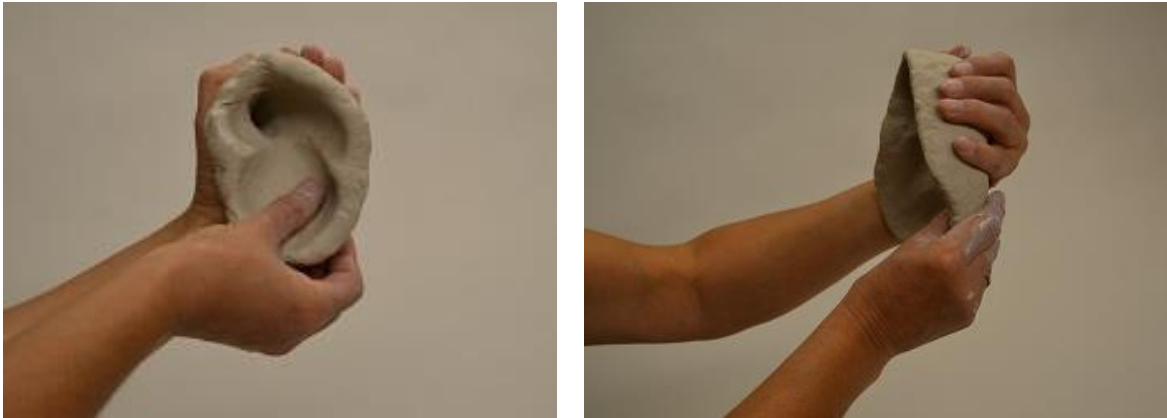


Figure 7: Photos showing the form-process of a *Body-Shell* (photo Ryan Gray 2013)

With the form series *Body-Shell*, I investigate the interrelation between convex and concave forms and the body's movement *through* the clay-wall. In this series of forms, the grip is still fundamental, but in comparison with *Handheld Objects*, it is related to the palm of the grip instead of the imprint of the fingers on the outside of the form (Figure 7). When modelling a form of plastic, flexible *clay-wall*, it is directed as much from inside outwards, as from outside inwards. At any given time, the *walls* have a direction. The forms appear more as *frozen movements*, forms of growth that have no clear demarcation. The *Body-Shells* are shaped more intuitively than the *Handheld Objects*, and relate to larger forms and movements of the body. The *Body-Shells* have shapes that are more draping forms; they are experienced as moving walls, as in extension of the arm's movement.

The modelled clay-wall is concrete, and I can feel the plasticity of the clay *with* my body. The grip is still a fixed core point when modelling the moving clay-wall, alternating outwards and inwards in different directions. I take part in the development of the form and can *bodily* feel the expansion of the curves. The experience of the rhythmic movements of the modelling is alternating between *being* in my body and in the form. After a while, the body becomes part of the form in a spatial matter that makes the form become *embodied movements*. My experience of modelling *through* and *with* the concrete clay-wall makes me understand the interrelation between convex and concave form more deeply.

The photos in Figure 8 illustrate my experiences; they show different positions and movements of hand, arm and form and how they all interact and relate to one another. I perceive the form in relation to my body as, *above-and-away*, *emerging-from-enclosing*, *towards-overlapping*, *undercover-straight-out* and *from above and beyond*. Sometimes the difference between what is inside or outside the form erases. The interplay between convex and concave form takes part in my body as a continuous movement.



Figure 8. Photos showing the activated forms from of the series Body-Shell (photo Ryan Gray, 2013)

Conclusion

With this paper, I want to demonstrate the impact that haptic perception has for the overall understanding of three-dimensional form. The data used for this paper are from experienced ceramicists who all possess high skill levels and substantial experience working with clay. It is important to emphasize that our reflections are inside perspectives, stored in our body-schemes as professional embodied knowledge. This knowledge should not be confused with spontaneous feelings about form processes.

Form analyses are generally dominated by visualized representations, which means that only part of our perception is articulated. It is vital to gain access to haptic experiences from form processes in order to take advantage of embodied knowledge and understand the complexity of the three-dimensional form. Experience of forms will always depend on their inherent features, but it is of great importance to open the experience to and through our sensing body. The examples in this paper describe my own experiences with modelled form, buttressed by other professional ceramic artists who relate strongly to the material clay in their form processes. From the reflections and descriptions of form and form experiences, it is obvious that the clay works as an agent in the form process and that forms take part in the active moving body. By putting forward the interaction among form, body and material, I seek to argue for form knowledge as aesthetic, a sensed form knowledge that develops within our *phenomenological body*. The concept of *zero-point* gives perspective to the concept of *the grip*. The grip works here as a starting place, a place to begin examination. The hands are a place from which form as action is studied. It is clear that our understanding of form always comes from both earlier experiences stored in our *body-scheme* together with here-and now experiences, sensed with our living (in the sense of *Leib*), *kinesthetic* body.

It is crucial to express the experiences of the form processes in all their facets, in order to develop knowledge that can be understood by others. To articulate the complexity of the embodied knowledge achieved from the forming process is difficult. On one hand, it is important to simplify and remove details from the experience, thus making it more clear. On the other hand, it is important to open up the sensing body completely in order to register

everything here and now. In the process of articulation, I become more bodily aware and conscious about what *is* here and now. In order to develop embodied knowledge from form processes, this *awareness* has to communicate. Ulla Thøgersen describes the interrelation between reflection and experience as “how mind and body are interweaved and not separated.” Thøgersen points out that reflection is meaningful because it is rooted in a *pre-reflective experience*, with the experience simultaneously becoming greater along with reflection about it. She refers to Merleau-Ponty when describing reflection as something that “sharpens the consciousness about being rooted in the current, [rather] than giving true answers” (Thøgersen, 2004, p. 33). In order to communicate embodied knowledge from experience with form and form processes as general knowledge, the reflections from experiences must not get lost in academic structures. The here-and-now experience has to represent the embodied knowledge in a way that *invites* others to open up their sensing body, to become more involved in the experiences of form and form processes in order to achieve a more *aesthetic* understanding of form. Compared with a more instrumental, technical perspective, this outlook embraces art and design as aesthetic disciplines. To verify experiences based on findings from form processes too strictly risks losing the connection to the aesthetic in experiences.

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