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Pictorial Involvement

Providing access to philosophical texts via visualization through artistic practice

Abstract

Theory dissemination in design can be labelled with what Rittel and Webber called a “wicked problem”. Design educators do not only struggle with the vague ontology of their discipline, but also with the fact that basic conjectures are seldom made explicit, which impedes possibilities for teaching design theory to students. This article addresses the question of how to facilitate theoretical understanding in design with the help of visualization through artistic practice. Following the introduction, which provides reasons for teaching philosophy in design at any rate, the second section presents features of a philosophy introduction course at the Oslo School of Architecture and Design (AHO). Section three introduces an experimental project on visualization through artistic practice conducted in this course in 2010. Section four presents project results by evaluating the students’ experiences. Conclusively, section five discusses benefits and challenges of this type of visualization for understanding theory in design. Results are meant to contribute to theory dissemination in the design disciplines.

Keywords: design theory, teaching philosophy, visualization of philosophy, emotional involvement, animated film, students’ understanding of theory

Introduction: Teaching philosophy in design and architecture studies

The course presented in this article is an introductory course in the history of philosophy, ethics and theory of sciences called Examen Philosophicum (Exphil). It is compulsory in many Norwegian universities and colleges and also mandatory for design-, architecture- and urbanism students. This article, however, mainly analyses benefits and challenges related to design, since this is the authors’ field of expertise.

The integration of design theory and philosophy into curricula can be described with what Rittel and Webber (1973) called a wicked problem, illustrated e.g. by the dilemma that even if theoretical knowledge becomes increasingly important in design, the majority of design students prefer practical and workshop activities to theory discussions (Keitsch & Hjort, 2012). From this point of view, teaching applied professional knowledge to designers seems to be more useful than teaching philosophy. The first question one has to address is thus: Why teach philosophy in design anyway? An epistemological answer to this question is that studying philosophy allows students to reflect critically on conditions, values and basic foundations of their discipline and to put these in a context of broader developments in the history of ideas. In the triad of design theory, methods and tools, theory constitutes the foundation for the latter two, often in the form of basic statements or definitions such as “design is (problem-solving, communication, reflection in action, etc.)”, “the tasks of the designer consist of”, etc. Assuming a relationship between theoretical knowledge in design and philosophical ideas, it appears difficult to understand Herbert Simon’s ontology of “design is problem-solving” without having an idea of Popper’s critical rationalism, Schön’s notion of the “reflective practitioner” without any reference to Dewey pragmatism and philosophical pedagogy, and Krippendorff’s “semantic turn” without knowing anything about language philosophy. This does not mean that students cannot apply problem-solving-, hermeneutic- or semantic methods. It means that they will not recognize the origins of these methods which, in turn, makes it difficult to analyse, modify or improve ways of applying them.

Putting design concepts, methods and applications in a philosophical context thus revokes the myopic disciplinary view, which, on the one hand, is a prerequisite for acquiring knowledge in a discipline, but, on the other hand, hampers creative improvements.

From an epistemological perspective, philosophy thus puts one's disciplinary foundation into perspective. Learning to locate oneself in a theory tradition leads to something even more important, namely to become able to contribute to the development of one's discipline by doing independent and critical research.

A pragmatic and didactic justification of teaching philosophy in design is that design draws on knowledge from different domains. Analytically, the design professions can be described by referring to different knowledge types (see fig.1) that are in concert and overlap with each other to varying degrees. In this typology the term *professional knowledge* relates to being familiar with design concepts, history, methods and tools, to select important information, process them into design requirements, and to find high-quality, expertise-based solutions. It is achieved through specialization and successful training in design education.

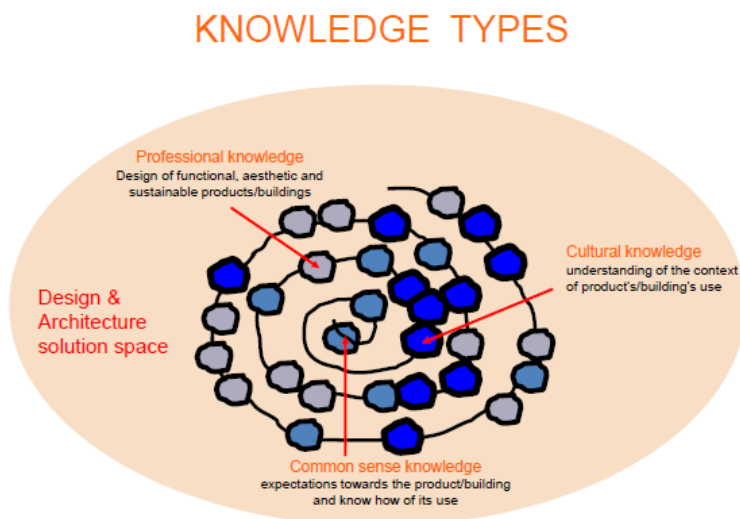


Figure 1: Knowledge types and knowledge transfer in design and architecture education (Keitsch, 2012b)

Cultural knowledge relates to the development of aesthetic, social and intellectual-reflexive abilities. It means to ask how humans and societies give meaning to the world and the things around them and how they define their place in that world. There is no “know-how” of cultural knowledge in terms of techniques or tools. Cultural knowledge increases the ability to know, communicate, and express oneself and one's design solutions and to interact with other humans. Finally, *common sense knowledge* is knowledge that consists of comprehension of what people usually consider as “natural” understanding. It relates to daily life-world experiences and is achieved through learning by doing. Awareness of common sense knowledge helps a designer avoid self-referential solutions.

Applying the knowledge typology for didactic purposes, the Exphil course at AHO has as its main objective the advancement of cultural knowledge, meaning here to become familiar with central concepts in philosophy, ethical theory and theory of science, as far as this is possible, and to relate them to concepts and phenomena in design and architecture. The course will further contribute to developing students' reflection, communication and argumentation skills, thereby re-locating their professional knowledge in a wider intellectu-

al, societal and aesthetic discourse. It will also train the students in understanding and evaluating ideas and in building arguments through essay writing on philosophical topics.

The basic idea of the course is to get students to engage with theory in a meaningful and creative way – to move beyond theory as something that is to be recited. From the authors' point of view, one does not study design or architecture to replicate what others think, but to learn to think as designer or architect and to become able to reflect and exceed boundaries in the field concerned. The education objective of EXPHIL in design and architecture is to contribute to this progress.

Difficulties and facilitation methods

The abyss between theory and practice in the disciplinary architecture of the design field which encumbers reflection and adaptation of theory in design curricula in general has been taken up elsewhere (Keitsch, 2012a). However, the specific reasons why it makes it challenging for the students to access original philosophical texts will be addressed in the following section.

The first difficulty is that in order to understand philosophical texts, a lot of background information is required: knowledge about the topic, the history and the philosophical context of the text, knowledge about the author, knowledge about the technical terms and the meaning of the technical terms in this philosophical context, etc. Another reason for the struggle with philosophical texts is their complex language: philosophy employs compound sentence structures, complex grammatical constructions, and new and unfamiliar metaphors to communicate meaning (Reichl, 2008). In addition, philosophy authors tend to develop their individual characteristics within vocabulary, terms and even the use of grammar. Considering all these aspects, the understanding of philosophical texts includes learning to deal with a particular way of employing language: it means learning a new tricky idiom.

Further, access to philosophy is hampered by an attitude: many students do not see a direct relation to their professional knowledge development and thus assume that the contents of these texts do not matter to them personally, and who attempts to understand what is uninteresting to him or her? Comments from the interviewees, discussed below, indicate that many students experience philosophy as foreign. Others consider philosophical texts as boring or think they are not clever enough to understand these texts. These views also give an indication why visualization might facilitate the process of understanding: sensual connections may lower the threshold to deal with such texts.

Teachers can provide several means of supporting the process of comprehending philosophical texts. The most self-evident means is to provide the necessary knowledge about philosophy concepts and terms, present ideas and thinkers, for example as additional information on the website of the course. For Exphil teachers in design and architecture it is also crucial to relate philosophical ideas to professional knowledge and to personal experiences of the students (common sense knowledge) to engage them emotionally with the philosophy topics. Last, but not least, the students themselves have to understand that dealing with philosophy requires simply endurance: reading and discussing original texts over longer periods of time, which in the AHO course is partly provided by weekly seminars accompanying the lectures.

In order to learn idioms and to develop one's own interpretations, it is often necessary to read a text without understanding it entirely. Only by reading philosophical texts does one get the training necessary to understand and interpret this type of language. Reading the same philosophical text slowly and repeatedly until its content becomes accessible is a habitual practice for many professional philosophers (e.g. Jakob, 1993, p. 548.). While professional philosophers experience feeling rather stimulated by the difficulties in the texts, students often consider this a hard and unsatisfying task. Education as well as aesthet-

ic encouragement and suggestions for provisional interpretations help students through the phase of not fully understanding a text but continuing anyway. Visualizations are a stimulating medium to see the text in a new light and to engage with it despite students' difficulties in grasping it.

A visualization experiment

The motivation for the visualization experiment was to investigate the hypothesis that artistic practice and its results can support the process of learning to comprehend and discuss complex philosophical ideas. Artistic practice here refers to the way an artist goes about doing her work. In our case, artistic practice was performed in designing an animated film project. The basic rationale is that an artistic approach might help students access the complex language of philosophy by allowing them to deal with a philosophical text in a playful and emotional way. Providing art experiences could allow students to connect their cognitive understanding, their sensuous experience and linguistic practice in a novel and inspiring way. In the context of teaching philosophy at universities of art, design, and architecture, this artistic way of engaging with philosophy might address and connect with the students' abilities and interests.

The film project took place as a laboratory experiment where animations of short texts from the course curriculum by Hegel, Heidegger and Sartre were shown to four groups of students of architecture and design. A further four semi-structured group interviews with the students were conducted, recorded and analysed in relation to their perception of and reaction to the animated films and their opinions on benefits for understanding philosophy in design and architecture.

Basic objectives of the film project

The first objective was to create a set of films that allowed experiencing genuine philosophical text in a new and inspiring way. Presenting philosophical texts within an interplay with animated film should allow students to experience them in a different setting and in an altered intellectual mode. The authors further wanted to examine whether such an artistic approach triggers students to combine cognitive understanding, linguistic practices and sensuous experience.

Teaching philosophy confirms that many students find it stressful to deal with philosophical texts they do not fully comprehend. The creation of this set of films was meant to partly ease this stress and motivate students to engage with genuine philosophical texts in a playful way. As it turned out and is discussed below, this format contributed to at least making students accept and endure their vague understanding of the philosophical texts and to make them feel comfortable. As the interviews documented a playful mode of perceiving, the texts can also elicit a more creative, detailed and relaxed mode of talking about the texts.

The second objective was to create films that engage the students in an emotional and aesthetic way. The films themselves emphasize the visual design; they create an atmosphere and an emotional frame. This aesthetic and emotional impact might also capture the students' professional interest in the design and visualization process, even if there is no explicit evidence on this in the interviews.

The third objective was that the interplay of text and film is a semantic format that encourages students to invent interpretations. By offering many entrances, the films induce the students to explain philosophical texts from various creative, phenomenological, common sense, cultural, and professional perspectives. thereby developing their own vocabulary. Training the ability to transfer philosophical and theoretical assumptions and theories to one's own professional practice is a crucial objective of the course (from cultural knowledge to professional knowledge and vice versa). Therefore Exphil students are always

strongly advised to use their own examples in explaining theories, e.g. in the written examination.

At this point the authors find it necessary to emphasize that the aim of the films is NOT and cannot be to offer any “right explanation” of the texts (Reichl, 2008; Reichl, 2009a). Instead, the films provide sensual and emotional expansions and enhancements and playful suggestions for interpretations and misinterpretations. The goal of these visualizations is not to give an easy-to-catch explanation, but to involve the observers and to seduce them to find their own interpretation. Therefore, the films are designed as creative works, which communicate their own status as a playful approach and an experiment of artistic practice. The visualizations will provide a novel experience that connects intellectual understanding, emotional experience and linguistic practice in an inspiring way.

Teaching philosophy is – normally and naturally – based on linguistic practices: reading, explaining and discussing. Employing the films within teaching philosophy will not change this, but it might provide one tool for fuelling this practice: the films could be a promising starting point for the reception of philosophical texts and also for discussing them. In this context employing visualizations and animations in the process of teaching theory is seen by the authors as a means to encourage independent interpretation and foster intellectual understanding and linguistic practice.

The design of the films

According to the objectives mentioned in the previous section, Reichl developed a format of animated films that presents the original philosophical texts and engages deeply with their meaning, yet in a creative and surprising way. Her approach consists of producing a filmic “paraphrase” of short passages of genuine philosophical texts. This “transposition” of theoretical sentences into the physical world of animated film scenes connects the texts to spatial situations and bodies in motion visible in a film scene. The films display the texts as verbal speech and combine them with visualizations. This produces close linkages between text and film (see below). The format is construed in order to make the recipients experience the text in a novel and interesting frame and to engage in a pictorial “paraphrase” and thereby in a pictorial interpretation of the text. The term “pictorial” is employed here to highlight that visuals depict objects, bodies and beings within spatial (possibly changing) situations. The term “pictorial” is more specific than the term ‘visual’ and is used in this article to address images and animated film as images in motion.

For the films, a set of short passages (5-10 sentences) of texts by Georg Wilhelm Friedrich Hegel, Martin Heidegger and Jean-Paul Sartre were chosen. All texts describe aspects of the perceiving and thinking mind. Each text passage contains an interesting and self-sufficient unit of meaning. The texts passages differ in their style, in their complexity and in their degree of abstraction.

The films consist of short animated film sequences (1-4 min., flash film). They show abstract forms that interact physically. Reichl took the sentences as the basic reference points for the animations and referred to the main concepts of the text. The films refer to the texts through different forms of pictorial reference. The forms of referencing between abstract text and film are complex, and so is the mode of function of their interplay. This paper is too short to do justice to this subject. Prior research by Reichl (Reichl, 2008, 2009a, 2009b) examined how pictorial representations are able to relate meaningfully to theoretical ideas and abstract language and showed that metaphor is by far the most important form of reference in this context.

The figures 2-4 show stills of the films.

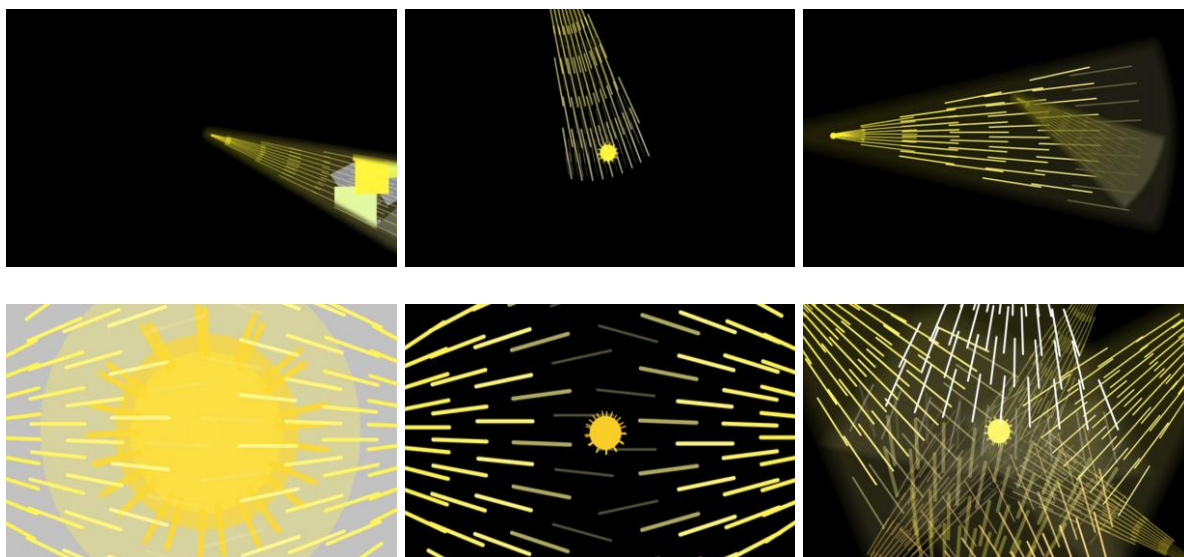


Figure 2: Stills from film *Sartre: The Look* (Text: Sartre, 2003, p. 282)

Animated film was chosen as a means of visualization for two main reasons: first, animated film is a flexible and complex format and can therefore meet the intricate language of philosophy better than images. Second, animated film can be synchronized with the spoken text and thus be put in a particularly close relation to the text. These synchronizations suggest close linkages of pictorial objects and movements in the film to terms and predicates in the sentences. These linkages are important for the beholder, because they allow constructing detailed relations between the texts and the pictorial elements. These relations are the basis of understanding the films as “paraphrases” or as interpretations of the texts.

The chosen format of combining animated film and spoken text cannot simply be understood as animated film scenes putting something on top of the text; the combination can rather be seen as a new medium that asks for a new, creative form of reception. These interplays of texts and animated films do not embody common formats of combinations of text and film as, for example, documentary films or cartoons. Therefore, the observers have to decide (and maybe even have to invent) how to construe the correlation of its parts.

The films provide a rather slow display of the text. They allow concentrating on short passages of text and ask the beholder to give much attention to a few lines (and repeated attention as the films were shown twice). The films make an effort to refer to every sentence and sometimes even every clause. They point at small differentiations. They thereby draw attention to the details of the text. Furthermore, the chosen combination of a short passage of spoken text and animated film scenes gives a special importance and emphasis to this text passage.

The films employ associations as motifs for the visualizations. Reichl tried to find pictorial metaphors for some aspects of the text. Such metaphors are always a form of “over-interpretation”: the visualizations imply more than the text indicates. In the film *Hegel: Subjective Spirit*, for example, the process of perception is depicted through a kind of blossom that touches landscapes with tiny antennae. This visual depiction is a rather free interpretation of Hegel’s idea of the perceiving mind; it was partly chosen because it interprets perception as a friendly and caressing touch and partly because it can be changed in many ways to depict the different sentences of this paragraph by Hegel; and these differentiations provide an interpretation of this succession of sentences. Thus the main metaphor of this visualization can be defined as “perception is blossom with moving antennae”. This metaphor, however, has many implications that do not answer Hegel’s concept of per-

ception. Yet this is part of our concept. We do not want to give the “right” interpretation, but a slightly “wrong” or inventive one that elicits emotions, an own interpretation. For many reasons a “right” or complete pictorial explanation is not possible. The films would provide very simple visualizations that cannot avoid becoming over-simplifications (in the ways diagrams work, depicting simple concepts like the ratio of amounts, or A implies B, etc.). Such over-simplifications are not adequate for the complex definitions and fine differentiations philosophy consists of. And they do not help to master the complex idiom of philosophy. In case the films use complex visual metaphors, the visualizations necessarily contain contradictions and associations that may contradict the intentions of the original philosophical texts.

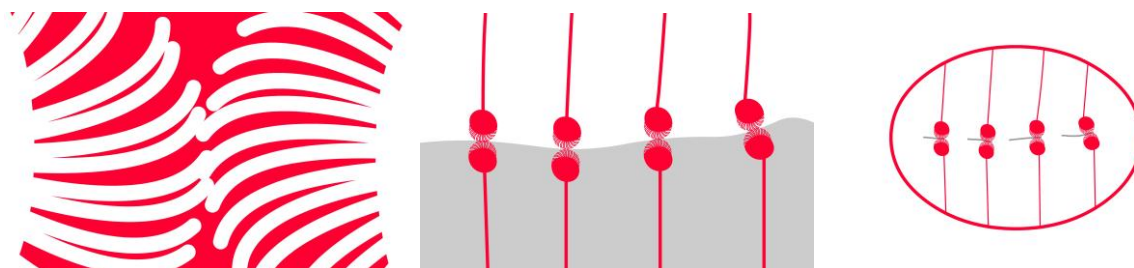


Figure 3: Stills from film *Hegel: Subjective Spirit* (Text: Georg Wilhelm Friedrich Hegel, 1969, p. 180) For watching the film connected to Figure 3 please use the following link: <https://vimeo.com/38108248> and insert the password: Figures of thought

A crucial aspect of this project was to find a format that is clearly marked as an artistic, personal approach. To communicate the creative nature of this approach to the audience is important in order to avoid observers understanding the films as the “right” interpretation or as a form of an “official” explanation. If the interplay is understood as an artistic approach, it is obviously a suggestion of meaning without any warranty of this meaning being the “right” interpretation of the text in question. This allows the animated films to be playful, to be emotional or judging towards the text and even to misunderstand it. The recognition as an artwork permits the films to include surprises and paradoxes without irritating the observers. It also means that most observers do not feel bound to understand the text as a whole perfectly, but that they rather concentrate on the interplay of text and animated film and on how to interpret these interplays.

The impact of this format

The format of combining a sentence with a film scene and linking them closely has many implications. Pictorial representations depict spatial objects and bodies in movements and in spatial relations. As long as they avoid showing conventional symbols (Peirce, 1998) pictorial representations can only embody physical and body-related qualities and concepts. Such concepts are, for example, “transparency”, “power”, “intentional movement”, “tenderness”, “balance”, “touch”, “violence”, etc. Such concepts are familiar to all of us. Moreover, such concepts are highly sensually and emotionally loaded.

In this context it is important to emphasize that bodily and physical metaphors are not as foreign to philosophical texts as it might seem at first glance. Language in general, and also theoretical language in particular, is full of expressions that are based on body-related concepts. Mark Johnson and George Lakoff (2004) name some of them, arguing that language in general (and theoretical language as well) is largely based on concepts familiar to our bodily life. Jacques Derrida (1988) presents a view (following Anatole France) in which philosophy is based on a kind of “bleached mythology”: metaphors that come from bodily and religious concepts. The corporal connotation of many terms and expressions is

usually forgotten, but this relation becomes vivid again when animated films relate to the literal basis of linguistic metaphors.

The filmic visualizations employed physical objects in motion to relate to the theoretical concepts of the philosophical texts. The “transposition” of theoretical content into a physical situation has many effects: first, the visualization as a pictorial representation of physical and body-related concepts connects the theoretical texts with highly emotional concepts like “tenderness”, “touch”, “violence”, etc. Although the emotional colouring of the animated films is certainly different from and more intense than the emotional dimension of the texts alone, it seems unproblematic for most recipients to connect them. In the context of providing access to these texts, this emotional framing could be one important aspect of involving the viewers.

Second, in philosophical texts central terms (and most nouns) designate categories. Sentences from philosophical texts mostly describe the interconnections and relations of categories. “Transposing” these categories and relations into singular pictorial objects and their spatial relationships necessarily translates the categories into singular objects. This is a form of simplification that contradicts one main aspect of the intended meaning of the text and creates a form of nonsense, but it also might make it easier to deal with the correlations of these categories. Third, philosophical texts comprise a relatively low degree of transitivity (degree of change and of intentionality within sentences).

In the conventional view transitivity describes whether a verb asks for a direct or indirect object or not. Here we refer to the more advanced view of Hopper and Thompson. They define transitivity as the degree of change and of intentionality decoded in a sentence. Hopper and Thompson define transitivity through a bundle of grammatical and content-related characteristics (Hopper and Thompson, 1980). In most of their sentences philosophical texts describe the correlation between categories; such sentences employ in their content as well as in their grammar a low degree of transitivity. In contrast, movements in an animated film often represent a high degree of transitivity: it shows change and can often be read as intentional movement. High transitivity in film is correlated with intentionality and therefore also with personification: if the subject or the objects of the sentence is attributed to a visual object perceived as an acting being, these subjects and objects are decoded as acting beings. Thereby the animated films personificate categories and concepts of the text. Through personification and transification descriptive qualities of philosophical texts are converted into a form of narration. This narration is easier to access than the text. At the same time, personification profoundly contradicts the descriptive, intransitive nature of philosophical texts. Many beholders experience this contradiction as nonsensical but also as entertaining.

The films provide a form of interpretation by referring to differences and similarities of the text with differences and similarities in the film. An example might explain one important mode of function of this visual interpretation: in the film *Heidegger: Understanding and Interpretation* the different movements of stretching a net and filling this net with coloured areas represent the different descriptions of “understanding” and “interpretation” in Heidegger’s sentences. In comparing these different objects and their movements with their equivalents in the text, each of them gains a clearer meaning. The film *Heidegger: Understanding and Interpretation* illustrates, however, that the forms of similarity and differences between the pictorial objects can never fully match the similarity and differences constructed through the text. In fact, the metaphorical attribution of similarity and difference is not only a powerful tool, but also a difficult aspect of designing a pictorial “paraphrase” of philosophical texts: Philosophical texts address their main terms with so many large and small differences that it is impossible to find metaphorical pictorial equivalents that cover all these differences. It is impossible to find pictorial metaphors that represent the similari-

ties and differences of the text in a perfect way, sentence by sentence. Therefore, the interplay of text and pictorial representation always includes some gaps, leaps and inconsistencies. This does result in the impression of playfulness or nonsense and paradoxes or simply faultiness many viewers have. Thus, every interpretation made through visualization includes parts of understanding and (playful) misunderstanding.

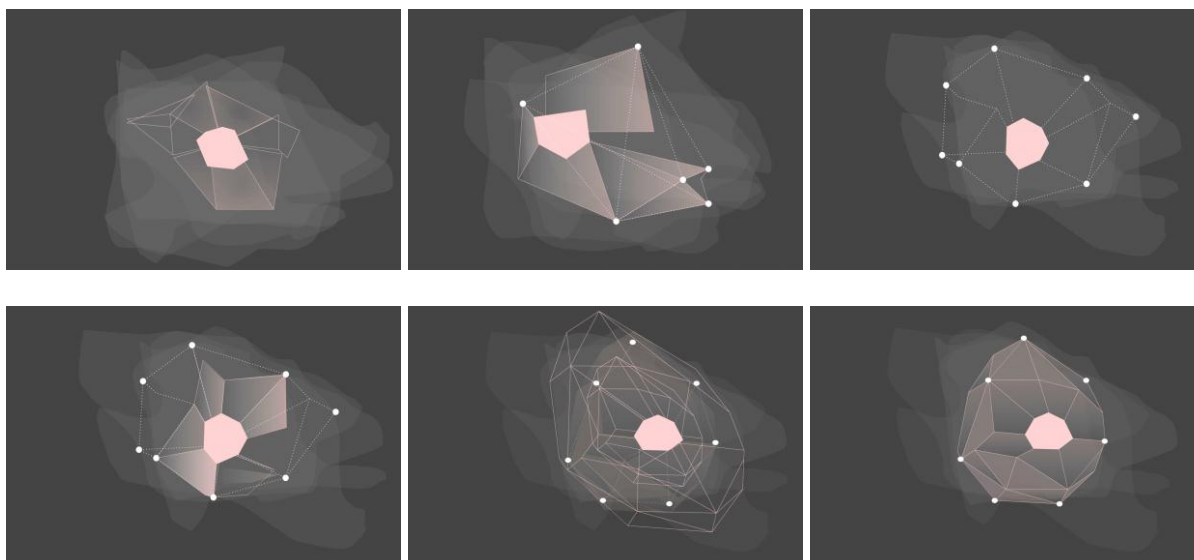


Figure 4: Stills from film *Heidegger: Understanding and Interpretation* (Text: Heidegger, 1996, p. 139)

The students' reception of and experience with the films

This project was done at the Oslo School of Architecture and Design (AHO) in 2010. AHO has implemented the Exphil course since 2008 as a mandatory part of the undergraduate curriculum for design and architecture and so far around 250 students have taken this course. The films were shown to 45 students from AHO at the end of their course. In four semi-structured group interviews their perception of and reaction to the films were recorded and analysed. After each film each group was asked about its experience and interpretation of the film and about its judgment of the interplay of text and film. The texts passages of the films relate to the course curriculum. The students were familiar with some of the philosophers and some related philosophical concepts, yet they did not know these particular texts and their contents.

The students reported very different experiences of watching the films. Some students (circa 15%) did not like them and could not see any connections between the animated film and the texts; naturally these students did not make many contributions while discussing the films. Some students (circa 25%) described the films as poetic or a quiet experience. We were astonished how many students reported a calming effect; twice the experience was even compared to a meditation. It was surprising for us that the films were experienced as quiet and calming because of the gaps and inconsistencies that can be found in them (see above). A third group (circa 30%) said that they liked to contemplate and tried to interpret the connection between film and text. For them the films were mainly a brainteaser and an interesting intellectual challenge. The students of the second and third group showed in their further argumentation that they could construct and interpret many references between text and film. For these students the films were an enjoyable and engaging experience. The rest of the students (circa 30%) made no clear comment on their experience throughout the

group interviews. The interviews took place in English. Talking about art and philosophy in a foreign language is a big challenge, and it might have been too difficult for some students.

The group interviews with the students showed that it was easy for all of them to access the visuals of the films verbally. The students discussed the filmic motifs without any problems. Moreover, the students tended to access and name what happens in the interplay of text and animated film by verbally addressing the pictorial objects and their relations and movements.

Most students understood the representations of object and beings in spatial relations as direct references to some aspects of the texts' meaning. Some students even extend these references and comprehend these physical objects and concepts in themselves as (metaphorical) hints at other philosophical concepts. One student, for example, referred the duality of lines and fillings in the film *Heidegger: Understanding and Interpretation* to the concept of the duality of body and soul.

All students concentrated intensely while watching the films. It was striking though that they reported that they paid very different amounts of attention to the different parts of the interplay. Many students (circa 35%) concentrated mainly on the images, some (circa 15%) foremost on the text, while most students (circa 50%) concentrated mainly on the interplay of text and film. They focused on the connections between film and text and more or less neglected the meaning of the text as a whole.

In every interview some students asked us repeatedly whether the films were art or not. It seemed to be an important question to them. This question was asked by students who obviously did not feel comfortable with the films. The clear classification of the films as art seemed to give them a more secure feeling. The students seemed more relaxed after obtaining this information. Our assumption is that the status as artistic practice makes students accept the unfamiliar aspects of the films and the texts. This status makes students also feel more comfortable with inconsistencies and nonsense in the films. Most students (circa 75%), however, understood the status of the films as an artistic approach right from the start.

All students were sure that the text passages were especially meaningful to the person who created the films. They did not, however, experience these texts as being especially important to them. Only very few students declared, when asked, interest in the texts themselves. So, the films elicited much interest in the interplay of text and film but only little interest in the texts they refer to.

The films influenced how students spoke about the texts. The focus of the students' comments was not on the meaning of the text, but on the interplay of text and film. Their discussion mainly revolved around whether the animated films matched the text and how the pictorial representations should be changed to match it better. From these discussions evolved many thoughts about the interplay and also some about the content of the texts. It has to be stated, however, that the students tended to talk about the interplays mostly by addressing the pictorial objects and their movements. In these discussions the actual meaning of the text was also touched upon, but it was not the main focus. It was noticeable, however, that the discussion addressed many details of the interplay and thereby many details of the text. Especially the pictorial play of similarity and difference in addressing particular terms of the text is mirrored in the discourse of the students. So, the films evoked a discussion of single sentences and terms and differences between them.

As the question of the aptness of the films' design addresses many design aspects, it is not surprising that it engaged the AHO students. The question of the best possible design of such an animated film concerns a field in which they are very interested and in which they are professionals. They spoke much about interplays of sentences and scenes they liked and found them interesting, and they spoke even more about what they would change and

what they experienced as gaps and inconsistencies. In fact, these gaps and inconsistencies advanced the involvement and the engagement very much. It is striking that the students spoke more about moments of inconsistencies than they spoke about combinations of text and film they perceived as harmonious and coherent. Moreover, they presented much more reasoning and argumentative rigor by explaining what was “inapt” and how they would change it. Often, especially the comments about gaps and inconsistencies related specifically to the meaning of the texts.

It was also noticeable that the students changed their views on the films and the text in the course of the discussion. For example, at the beginning of the discussion about the film *Heidegger: Understanding and Interpretation*, many students in all groups reported that they experienced this film as highly logical and in concordance with its text. In the course of discussing this film, however, the students began to name more and more inconsistencies and made many suggestions on how the animated film might be changed in order to fix these inconsistencies.

Several students said that the films made them find their own images. The gaps and inconsistencies seem especially apt to foster a starting point of developing own ideas for a visualization. These ideas, however, normally went back to some main pictorial motifs provided by films: the imagined pictorial interpretation of the students was always developed in close relation to the pictorial motifs provided by the film. Nevertheless, we can say that the films elicited ideas for an own pictorial interpretation of the text from many students.

The films allowed the students to refer with great accuracy to details of the texts and to enjoy thinking about their own interpretations. The films also made them think about short sections of text for quite some time.

Visualization through artistic practice and its use for understanding theory in design

The project addressed in this paper and the experiment of introducing new methods of theory and philosophy education in design can be read as a contribution to how to reconcile education in design theory and practice with the help of different media.

As many practice-oriented fields, design research and education today faces the challenge of reflecting philosophical ideas without having a firm theoretical foundation. However, designers possess quick comprehension abilities and creative minds. The experimental project introduced in this article meets these abilities and provides a novel approach to visualizing abstract language and to teaching philosophy with respect to the creative processes inherent in the understanding of abstract texts as well as in design thinking.

Different approaches of knowledge dissemination in design with the help of visual media already exist and are worth comprehending in this context. For example, Chalmers University made an attempt to present metaphorical pictures to students in design and architecture (Granath & Rehal, 2006). Granath and Rehal conclude: “We felt that we had got strong evidence that use of pictures can be a meaningful and rewarding way to communicate and discuss complex issues. We also found that pictures could help to get a much deeper discussion and understanding between participants in a way that sometimes is hard to get in an ordinary seminar just using spoken language” (2006, p. 11).

Interesting is also Dahlman’s approach (2007) to link experience in the arts, here graphic design, with the acquisition of knowledge in natural and social sciences. Dahlman draws on Peirce’s and Dewey’s philosophical pragmatism and describes the benefits for the students by drawing pictures, which increased their ability to solve problems and provided new and different ways to comprehend their research. “Creating a picture enables the transformation of imagination into a concrete object. This does not indicate a depiction of an idea, but a direction of imagination into an articulation in a form other than verbal expressions. The picture shows a moment in the ongoing process of imagination. The act of draw-

ing transforms hitherto unarticulated forms of experience into non-verbal artefacts that invite reflection” (Dahlman 2007, p. 275).

In design, education linking experiences with art practice and its results with academic knowledge generation means to employ visualization to a higher and more sophisticated degree. In turn, this might trigger the interest of professional designers to develop visualization forms for theory and philosophy mediation - as in our case, where Reichl undertook the endeavour to create animated films from philosophical texts.

The scope of design has changed significantly in the last decades - from a focus on material aspects to the intangible, from functionality to pleasure, and from making products to providing services and experiences. Even if aware of changes, design curricula rarely reflect theoretical challenges and opportunities connected with these issues. Visualization as a crucial and familiar medium for designers can increasingly be used for theory mediation in design, thereby contributing to knowledge enhancement in general and a more relaxed relationship to theory and philosophy in particular.

Philosophy as a discipline is not equally interesting for everybody and some architects and designers are “born practitioners”. However, there are parts in philosophy that are useful for these kinds of professional careers. Moreover, an interesting curriculum can stimulate undecided, rather interested, but hesitating students to have a closer look at philosophy and its treasures. In design education visualization can, to a certain degree, be a starting point for entering theory discussions and support activities that enable movements between theory and practice between different stages of the education learning cycles. Design theory teaching and learning should then be appropriately timed in relation to the overall curricula and contextualised within applications in practical projects. This will enable students to engage with the theories and philosophies in a meaningful way, developing a range of skills, and seeing the value and practical implications of theories.

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