Mindfulness:
The holy grail of design education?

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Abstract: In the field of design education, the term ‘mindfulness’ has been criticised as a mystification of the creative process and derided as a ‘holy grail’ (Moore 2009). I will argue against this criticism, try to establish some general rules for the chaotic diversity of individual creativity and highlight the role of flow and mindfulness in connection with the creative act. These reflections are rooted in my own experiences teaching croquis drawing with a live model, as well as many years as a practicing artist and pedagogue. My main focus is on elucidating the relationship between context and mindfulness in a teaching situation. It is my hope that this presentation will contribute to a wider understanding of the act of drawing, including cognitive, psychological as well as philosophical aspects.

Keywords: focused/non-focused attention, croquis drawing, overlearning, flow, mindfulness, distributed attention, ego-centred control.
Introduction

How can we stimulate creativity in an educational context by using flow? The importance of mindfulness will be discussed here especially in relation to croquis drawing with a live model. Although this topic does not focus on the design process ‘per se’, can we find common ground between different working situations? Sketching out ideas in the germinal phase of the design process differs from croquis drawing in many ways. Both activities are nevertheless related to a part of the drawing process that particularly appeals to intuition, each accessing creativity in its own way in the sense that there are no right or wrong solutions. A characteristic aspect of this phase is the production of sketches in large numbers, executed extremely rapidly while the artist improvises. Improvisation requires a particular state of mind of concentrated attention that may be compared with mindfulness.

The concept of mindfulness has been discussed by leading psychologists, scientists, artists and spiritual masters, showing the diversity of fields in which mindfulness plays a role – from Thich Nhat Hanh’s Buddhist meditation techniques to Jon Kabat-Zinn’s clinical applications for therapeutic purposes (Boyce 2011). The Hungarian psychologist Mihaly Csikszentmihalyi has studied the importance of flow in many areas of daily life. His research focuses on creative individuals such as artists who are familiar with the phenomenon and make regular use of it. Csikszentmihalyi lists seven conditions that are necessary for achieving a state of flow:

- An activity involving such a large degree of concentration that nutritional needs and tiredness are forgotten.
- Ego-centred control of the process is replaced by a loss of self-awareness.
- Becoming one with the action.
- A clear goal, immediate feedback, and a sense of reward.
- A feeling of mastering the situation.
- The challenge at hand must be consistent with one’s skills.
- A feeling that time has disappeared.

The terms flow and mindfulness are often used interchangeably, but are they actually synonymous or do they describe different things? Authors Nobo and Sachiko Komagata define mindfulness as ‘a mental state of being aware of the outside and inside of oneself at present without judgment, i.e., with full acceptance.’ Csikszentmihalyi’s definition of flow is: ‘The state in which people are so involved in an activity that nothing else seems to matter’ and where ‘the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it’ (Csikszentmihalyi 1991).

Are we talking about separate states or transitions between related psychological states? This issue was addressed by authors Nobo and Sachiko Komagata in an article comparing the experience of flow and mindfulness in relation to the concept of concentration. Their conclusion showed that our understanding of these terms is still evolving and that it is easier to regard them as a continuum of states rather than as discrete mental states. The reason for this is the paradoxical relationship by which these three states are linked. A high level of concentration, for example, may on the one hand contribute to bringing about a state of flow, while on the other leading to a loss of mindfulness. This, in turn, may contribute to openness towards receiving advice and feedback that would not be possible in a state of mindfulness in which the present circumstances must be accepted without judgment.
According to the two Japanese authors mentioned above, both states lead to an increased awareness of the moment, although mindfulness represents the highest level. The difference between the two states lies in their relationship to concentration and the field – or ‘bandwidth’ – of awareness. The duration of the state of flow depends on how long concentration can be sustained and requires loss of self-control as well total immersion in an activity, something that in itself will prevent mindfulness. The latter, however, is not compatible with the type of concentration found during flow. The field of awareness is narrower and more present in a state of flow than in a state of mindfulness, in which it is enhanced (Komagata 2010).

The mental state explored in this article, using croquis drawing as a basis, has nothing to do with religious practices or therapeutic treatment, but draws on Eastern meditation techniques in an attempt to increase the awareness of the present moment. Although the phenomenon of mindfulness is both difficult to describe and to convey in its entirety, it is a basic and spontaneous human experience that can be enjoyed by anyone, such as when learning to ride a bike, dance, play an instrument or draw croquis sketches.

**Stimulating flow in an educational context**

The experience of flow and mindfulness revolves around tacit knowledge about the creative process, i.e. experiences that are very difficult to put into words. The ability to enter into such an experience requires bringing one’s entire personality into play. This means to access one’s own ‘spontaneous competence’ (Wiese 1998) by relying on instant reaction, rather than to be bound by rules. Emotional identification with the subject, i.e. relinquishing control, is necessary to become one with the task. Questions such as how to take a chance on everything going well, how to get rid of one’s anxiety, how to find the courage to throw oneself at the task, how to lower expectations or how to be unafraid of making mistakes and trust one’s own feelings as a resource for action, are quite common. One answer to these questions is to banish all critical judgment in order to safeguard the development of this vulnerable process. The ‘right’ mental attitude involves the student’s awareness of two different ways of thinking when processing visual information and of the functions of the two halves of our brain.

The experience of flow and mindfulness has among other things thrown light on the issue of how attention may be used in different ways during the learning process. The notion of ‘overlearning’ has been an important pedagogical concept in various educational approaches such as the Montessori system. It denotes…

... learning beyond what is necessary for immediate mastery of a task, for example continued drilling of a vocabulary list even after it can be performed flawlessly. Overlearning can provide superior learning, as the skill is preserved for longer than if overlearning had not taken place, or has been so well rehearsed that it has become automated (Store norske leksikon).

Automaticity as a consequence of overlearning is a particularly fascinating aspect of the learning process, as it frees attention for other tasks without sacrificing contact with the automated task(s).

Automaticity is the ability to do things without occupying the mind with the low-level details required, allowing it to become an automatic response pattern or habit. It is usually the result of learning, repetition and practice. ... After an activity is...
sufficiently practiced, it is possible to focus the mind on other activities or thoughts while undertaking an automaticized [sic] activity (Wikipedia).

Overlearning and automaticity are highly relevant concepts in connection with the process of learning how to draw, and can help us understand the role of attention during a state of mindfulness.

**Mindfulness and drawing**

The process of identification via aesthetic expression shares similarities with various meditation techniques in which posture and continuous attention to individual stable elements are of the essence. The actual focus of attention, however, is less important than its intensity. The former may vary greatly, ranging from visual stimuli to sounds, spaces or actions, depending on the meditative tradition in question. A crucial difference compared to traditional meditation techniques lies in the fact that the experience of flow is not explicitly formulated as a goal at the outset, but becomes a natural and spontaneous consequence of the necessary focus of attention throughout the act of drawing. Rather than a technique, it is more about an attitude that can help disengage routine thinking and thus allow one to be more present in registering the subject in the moment.

Figure 1: The diagram shows different levels of visual attention during the drawing process (horizontal axis) in interaction with assessments and strategies for action (vertical axis). Chr. Montarou, 2013.

As an artistic activity, one’s posture can be informal and does not require any special positioning. An important similarity between meditation and drawing is control of attention. When drawing, visual attention must be fully focused on the act of drawing, and shapes, lines and colours must be seen precisely for what they are – disconnected from any meaning. Like an aesthetic experience, both situations require a
sustained focus on the moment of perception. Such an approach can help bridge the initially considerable gap between the intention of drawing and the subsequent physical act. The rational mind knows what to do, but the body does not follow suit. After some practice, the perceived distance almost disappears. At this point, body and mind have begun to integrate in a way that provides ideal conditions for engaging in the act of drawing. This state of mind can be described as expanded consciousness, not in a philosophical or religious sense, but in the sense that the relationship between body and mind is in a state of flow. The experience of this state as simultaneously mental and physical is of great importance for the creative process, opening up, as it does, for improvisation and free association.

The following quote by painter Paul Cézanne conveys the artist’s ability to empathise by projecting him or herself onto the motif via focused visual attention. It may be seen as the result of the state of mindfulness Cézanne found himself in after painting for hours on end in the midst of the landscape he depicted: ‘The landscape thinks itself in me, and I am its consciousness’ (Sandqvist 1995).

A particular characteristic of this state of mind is that all sense of linear, chronometric time is erased. The artist seems to become one with time, ‘fully present’ in the situation while experiencing a sense of timelessness. This allows the body to play a different role in the process of perception: the anatomical, functional and rational body that creates meaning becomes less relevant. By partly ‘turning off’ the capacity for analytical thought, the brain ceases to perceive the body – as it usually does – as separate from its surroundings. Instead, the brain focuses on the actual and specific body intense concentrated on the act of drawing. Everything appears to take place simultaneously rather than as a series of events involving cause and effect. To a greater extent than otherwise, the body is experienced as being ‘at one’ with the surroundings and ‘in flow’ (Csikszentmihalyi 1991).

**Achieving flow**

The different stages of the drawing process resemble those described by both researchers on mindfulness and by the Chinese philosopher Zhuangzi (300 AD), who describes three different stages in the process of developing the basic experience of mindfulness (Billeter 2010).
I will argue that flow can be achieved by establishing the following conditions that help to usher students away from the control of ego-centred awareness and into flow and mindfulness:

- Control of attention during the drawing process.
- A feeling of mastering the task.
- Becoming one with the subject, i.e. loss of self-control during the process.

**Facilitating flow in a teaching situation**

The above description may give the impression that mindfulness is nothing more than an ego trip taking place in the individual mind. But the experience of mindfulness in an educational setting is not about one person separately interacting with his or her surroundings. Instead, it involves a group situation in which students, each with a unique set of expectations, interact by focusing on a common task. This places certain mental and physical demands on the participants, some of which may be addressed by a targeted use of educational resources. The rest is more a matter of organizing activities, techniques, materials and locations without any other clearly defined objectives than to be open and prepared to accept whatever might happen during a session.

Nevertheless, before attempting an improvised session it is important to keep in mind the timing and sequence of the various progressive stages. Having practiced drawing regularly for several months, students have also tried their hand at sketch drawing based on magazines and movies. In addition, students experiment using various ink techniques. This allows them to become familiar with new techniques and exercise their visual imagination based on the application of these techniques. During their work, students are challenged to apply focused attention by using the methods discussed in this article.

Ultimately, it is a question of sharing one’s own conviction with the students: every human being possesses creative powers that can be unleashed and cultivated. This requires trust in oneself and the ability to react spontaneously and creatively to visual stimuli.
In order to experience a sense of flow in drawing, it is necessary to perform this activity for its own sake, simply because it is a pleasure to draw. The atmosphere should be special, and there should be something magical about it. This can be reinforced by using certain habits and rituals, e.g. marking the threshold to a creative space, using music and establishing a repetitive structure of working periods and breaks. A safe situation can help some students dare give more of themselves and achieve something beyond the ordinary. The artistic activity is based on imitation (mimicry) and allows the students’ imagination and empathy to unfold. This entails above all the ability to identify with the artist in oneself. Through identification with the dynamic of the model’s pose, experienced as lines and shapes in space, the student virtually becomes one with the model. This is brought about by a continuous and repeated drawing action that establishes similarities between the traces left by the student’s hand movements and the motif. Students learn to trust their hands and discover that intuition frequently – but not always – can be counted on, and that emotional investment, hard work and diligence are indispensable.

Rendering the energy and dynamism of the model’s pose by using lightning-quick sketch drawing. Student works.

One characteristic of a state of flow is that it provides self-esteem and thereby transcends the boundaries of the self. This means that we imagine ourselves to have qualities that we do not actually possess. In this way, the students can surprise themselves and perform better than if they had maintained a more ‘realistic’ sense of themselves. The students should be confident in their own abilities and hopefully not be concerned about the results, although in many cases the drawing skills of the individual student are not yet fully developed. The primary goal is to experiment with coincidence, setting aside any major expectations. Students attempt to master technique without defining advanced objectives such as rendering the energy and dynamism of the model’s pose.
Determination and control of visual attention

The first step in learning to see is to understand the need to develop control of visual attention. This applies to both quality (intensity) and quantity (selectivity). Selectivity entails visual acuity — the ability to interpret a three-dimensional motif on a two-dimensional surface and transform aesthetic stimuli into a repertoire of visual elements such as lines, spacing, angles, proportions and symbols. In order to learn how to control attention, it is important to provide clear ‘guidelines’ that tell the eye what to focus on, while at the same time judging what information should be suppressed as irrelevant. When using focal vision (narrow/analytical) in everyday perception, the shape of an object is identified in conceptual terms as a shape separate from a background. The creative challenge in the act of drawing is linked to the ability to register the relationship between shape and surroundings. This also involves attention to negative interstitial shapes that surround the motif and provide a new focus. This approach inhibits the usual tendency to focus on the main motif and instead fragments the scene into a puzzle of shapes that carry as little symbolic significance as possible. In this way, the artist can more easily break free from the presence of the concrete object and the power of perception that is governed by a conventional systematization of symbols.

By using non-focal vision (wide/synthetic), including both front and back (the main subject and its context), the draughtsman establishes a relationship between foreground and background and perceives the motif as a complete drawing. This type of vision requires clearing one’s head of thoughts; the resulting ‘mindful void’ allows the artist to unconsciously scan the field of vision using distributed attention (Ehrenzweig 1974). Consciously shifting between focal and non-focal vision and thereby achieving transitions in the perception of a motif is a useful exercise for developing the experience of flow.

What about the intensity of visual attention during drawing? The level of intensity plays an important role in the drawing process, since it mobilises an overall state of alertness that allows the artist to address and respond to a stimulus, usually lasting anywhere from one second to 15 minutes; the ‘creative instant’ probably occurs during these short lapses of time. The path to achieving such an intense focus is an act of will that requires both a mental and a physical effort. Many students are unaccustomed to actually being inside the work and at first find this quite tiring.

Drawing is a psychomotor act that requires coordination of different mental processes and areas of experience. This includes, among other things, the students’ need to extend their accustomed field of vision and to translate the entire gamut of their perception into visual language, emotional commitment and physical, muscular activity. All of this entails a more instantaneous collaboration among these areas than is required in most of the fragmented and specialised activities we engage in, and therefore demands a greater amount of energy than many of us are accustomed to. In addition to a short and intense focus of attention, the draughtsman has to be able to sustain his or her attention throughout the time needed to finish the drawing and learn to exclude distracting elements while working.

Combining time pressure and focus control

Conscious use of time pressure forces students to develop a spontaneity that reflects the model’s body in the selected pose. The student needs to apply synthetic vision so as to capture a fleeting reality in mere seconds (10 to 15 sec.) and record it by using unconventional techniques and materials. Materials and untraditional tools are
selected with a view to facilitating improvisation. Their use invites the student to think and act spontaneously rather than to stick to familiar rules and routines. In this way, representational schemata fall by the wayside and space is freed, allowing more original solutions to appear. These solutions, which the student had to find while engaged in an action, may have been inconceivable just moments earlier. As a consequence of time pressure, gestural rapidity helps the draughtsman remain fully concentrated on the act of drawing so that all perception of time ceases. In other words, the artist is ‘at one with his actions’, disconnected for an instant from the perspective of past, present and future. The duality between body and mind that lies at the heart of the drawing process has been temporarily suspended, subsisting nevertheless in the constant alternation between proximity (being at one with the drawing) and distance (evaluating from a distance). Reducing the distance between intention and physical action may well be considered one of the most important objectives in the drawing process as far as mindfulness is concerned.

Students work using various ink techniques.

**Overlearning**

Before carrying out the act of drawing as a routine action (intuitive reflex), one has to learn by imitating: first drawing based on instruction, and then trying on one’s own. When the stage dealing with focus of attention has been mastered (i.e. losing yourself and becoming one with the subject), consciousness can be freed for other purposes. Because the action has been partially integrated into the body, control is no longer needed to the same extent as before. This stage wipes out consciousness similar to falling asleep, and the act of drawing can occur ‘automatically’ but by no means in a mindless manner. As a transitional release, other parts of consciousness take over more complicated tasks like capturing and combining fragments of information from both past and present in new ways. Another form of visual concentration called non-focal vision or distributed attention is used to simultaneously process different sources of information by according each of them the same level of attention. This involves alternating between conscious and unconscious scanning of the flow of outer and inner stimuli.
Mastering the task and experiencing flow

From an ego-centric and rational, controlled state of mind, separated from an awareness of the body and surroundings, the creative process moves to the transitional state of becoming one with the motif and the surroundings through control of focused attention. Once the ego gives up its disturbing habit of constantly producing new ideas, the intensity of attention allows intuition to take over as a creative force and release the flow of mental energy that provides optimal conditions for action. The artist feels at the top of his form, wide awake and entirely present in the situation, mastering the task. This situation, which is experienced neither as a wholly mental nor as a wholly physical state, breaks down routine rational thinking and allows access to body knowledge through a 'head over heels' process. This involves a new way of processing visual information by using non-focal vision to ‘distribute’ one’s attention. In contrast to focal vision, in which a single source of information is processed at one and the same time, distributed attention compels the artist to ‘scatter’ his or her gaze across the scene and record more complex patterns of information. This also opens up for combining fragments of information from short and long time memory.

Interaction, feedback and reward

Proper feedback given at the right time can be enough to confirm an experience of flow, during which mental energy is released between the artist and his or her work. Confirmation of the newly created sketch gives students the feeling of being present and part of the here-and-now. In keeping with the students’ realistic evaluation of their own skills, the drawing itself may not be exceptional, but the endorsement of an intuitive and spontaneous action represents such a strong and self-affirming reward, that it overshadows the actual result and reinforces the students’ confidence in their own creative potential. According to Csikszentmihalyi, one of the conditions for achieving flow is a balance between challenge and perceived mastering ability; other conditions are clarity of objective and instant feedback.

During the break, students may receive further comments from both their fellow students and teachers, and look at the work of others. At the beginning of the next session, the student wishes to repeat the same positive experience but is unable to do so. The open attitude is gone and the drawing process is expected to achieve a specific goal: a replication of the previous session. The result is a feeling of boredom.
During the next break, students gain new insight into what their fellow students have achieved, while new comments are interpreted to assess where each student stands. They begin to worry about the next session, afraid that anxiousness will sabotage their work in case they do not ‘get it’. Another review and a reminder to ‘relax’ with the assurance that a ‘bad’ drawing is as important as any other drawing, since the experience will benefit the student in preparing for the next session with a new round of drawings.

The longing to recapture the first experience of flow is the best motivation to try again, free of any distracting thoughts. As a result, mindfulness allows students to direct their attention, letting mental energy to flow between their own intent and the motif in question. Without any warning, a response to the challenge of producing a croquis drawing suddenly emerges. It all happens within a few seconds. Eureka! A croquis drawing can capture the power and dynamics of the pose, the body’s rhythmic movement, its proportion and balance.

In this way, the process can evolve, and lessons learned can be used in future interactions with the environment. The key to motivating an experience of flow is to foster a sense of self-development and discovery that allows the artist’s mind to grow and develop levels of greater complexity (Csikszentmihalyi 1991). The greatest obstacle to creativity is often brought about by one’s own thoughts and concerns.

### Sound organisation as ritual

In addition to the participants (the personality of the model, the instructors and students), the particular space lends a distinct character to the situation, as does the location and position of the individual participants in the room – whether sitting or standing, body position plays a role in activating embodied knowledge. In addition to the primary visual focus and the way in which students are placed around the model, auditory stimuli (sounds, noise, music, etc.) registered during the drawing session affect the mind and can be used to stimulate the brain to concentrate on the task. I usually vary the register of sound from total silence – so that you can hear the sound of the drawing tools on paper – to jazz rhythms and classical music at various sound levels. This can help to structure attention and dispel distracting thoughts.

### Time organisation as ritual

Work sessions with a model last for four hours and are divided into twenty-minute drawing intervals and ten-minute breaks. Like a ritual, this pattern repeats itself regularly and when the Do Not Disturb Sign is hung on the door (‘do not disturb, we are drawing a model’), students are aware that an important event requiring quiet and concentration is about to take place in this room and within a given time period. This ritual has a positive effect on students, preparing them for the work that is about to be done.

### Alternating between different states of mind

The physical act of drawing lines shifts the artist’s focus away from the external referent (the model) towards the body’s internal experience and accessing sensory-motor memory. As a consequence of having ‘turned off’ everyday consciousness by using the methods mentioned above, a ‘stream of consciousness’ emerges – a continuous stream of thoughts, images and associations. By entering into a state of mindfulness while at the same time sketching continuously, the artist can
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simultaneously observe their own thinking as both participant and spectator, witnessing the emergence of the subject on the drawing sheet. It is the paradoxical and concurrent experience of ‘being’ (by means of being aware of the outside and inside of oneself at present without judgment) and ‘nothingness’ (having thoughts without the presence of a thinker, i.e. absence of ego).

Saul Steinberg’s drawing for the Oct. 18 1969 issue of the New Yorker illustrates human consciousness as a continuous stream of thoughts, images and associations. By assuming a state of mindfulness, the artist can experience an instant of being both a participant and an observer through the self’s state of being.

This condition represents a higher level of consciousness in which the artist has moved beyond conventional aesthetic definitions of ‘good’ or ‘bad’, resulting in personal, original and creative work. The artist’s range of attention is now far broader than in a state of flow, focused both on the act of drawing, the drawing itself and the motif in relationship to the surroundings. This does not imply a lack of sensibility, but only that parts of consciousness are now free for other purposes. This type of ‘distributed attention’ would not be possible in a state of flow, which requires full immersion in the motif and therefore a lack of mindfulness.

As a result of mindfulness, non-visual stimuli are registered as well. It is a blind process, in which the artist’s perception of the motif depends on data provided by both short and long term memory. The constant movement of the drawing hand capturing the position of the model creates new analogue schemata that are registered in short term memory. In its interaction with the movement of the hand, the mind chooses among many different attempts and transfers the most appropriate model schema created by the hand gesture from one domain to another. Here, the artist must combine both what he or she sees on paper and registers by studying the model with what is invisible, but registered nonetheless. It is during this timeless instant that embodied experiences from long and short-term memory overlap to find the right identification with the model. Francesco Varela explains similar processes with his theory about ‘enaction and emergence’ – as autonomous events that occur in a state of mindfulness by means of a ‘self-producing network of schemata’ (Varela 1993). The
interaction of schemata (stored body experiences) synthesises the flow of information based on structural analogy, regardless of the ego’s conscious control, which among other things must be mitigated by ‘clearing the mind of thoughts’ as much as possible. This is an inspiring model for understanding the thought process that provides the basis for producing a drawing.

The experience of having a physical body allows the artist to recognise and identify with the model’s pose without interference by the ego, and his or her knowledge of drawing makes it possible to enhance this identification by transferring it analogically into lines, surfaces, light, shadow and rhythm. Although this stage requires discipline and perseverance, the drawing appears to come into existence by itself and without any effort.

The basis for this article

The above reflections are based on my own observations and experiences in teaching drawing, inspired by student’s drawings, their behaviour during drawings sessions and their comments and reactions to fifteen-second croquis drawing of a nude model. These observations were made over a ten-year period with a large number of students, both men and women. How is it possible to measure the effect of mindfulness and flow on the drawings? I used the following evaluation method: as part of each drawing session, students selected three drawings among approximately 60 that typically were produced during the course of a session. In collaboration with each other, students evaluated the drawings according to the ability to render:

- The power and dynamics of the pose
- The body’s rhythmic movement
- Proportion and balance

The selected drawings were proof that the students had experienced moments of flow and mindfulness during the process dependent on daily fitness level i.e. ability to concentrate on task. Their written evaluations of working with lightning-quick sketches also indicated that they felt time was flying by and that they were engaged in a challenging but exciting task.

Conclusion

The reflections presented in this article invite the reader to consider the importance of a state of mindfulness and flow during the creative process and aim to provide some ‘inspirational tools’ to discuss the subject and hopefully contribute to its wider acceptance in an educational context.

One of these tools consists of an analytic approach to the mental processes involved when producing a drawing. Another approach is to highlight the importance of the exchange taking place in the context of a teaching situation. A third approach focuses on the connection between mindfulness and creativity. The challenge in teaching drawing is to emphasise the essential role of the body in the process of perception. Since this applies equally to the field of design, the designer as a creator of conceptual sketches will benefit from opening up all the senses and focusing on the act of drawing in order to enter into the mind-body relationship referred to as mindfulness and flow. In this state, the creative process provides an opening whereby different levels of consciousness can combine to produce new insight.
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Hopefully, these reflections will contribute to a clarification of the concepts of flow and mindfulness in relation to the drawing process and provide some new perspectives in terms of how the process may be approached and structured, as well as to the question of what should provide the basis for teaching drawing.

References