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Editorial

Drawing in Artistic Research – Whence and Wherefore?

The topic of this special issue of FormAkademisk is *drawing*. While the issue is hosted by the Oslo National Academy of the Arts (KHiO), the contributors have come in from different urban locations in Norway, including Volda, Trondheim, Bergen and Oslo. *We would like to use this occasion to extend our thanks to the external peer-reviewers*. They have helped in bringing the issue to its present level of quality.

The external reviewers are (in alphabetical order):

- Peter Bjerregaard [Museum of Cultural History/KHM, University of Oslo, Oslo, PhD]
- James Peter Burgess [École Normale Supérieure/ENS, Paris, PhD]
- Camilla Groth [Aalto University, Helsinki, PhD]
- Eirik Frisvold Hanssen [National Library/NB, Oslo, PhD]
- Marit Holm Hopperstad [Dronning Mauds Minne – Høgskole for barnehagelærerutdanning/Trondheim, PhD]
- Stian Grøgaard [Oslo National Academy of the Arts/KHiO, PhD]
- Stian Tranung [MA illustration from KHiO, illustrator]
- Edvin Østergaard [Norges Miljø- og Biovitenskapelige Universitet/NMBU, Aas, PhD]

In the following, a brief presentation is given of each author's contribution (cf. order below). The presentation aims at being concise. Following these is a piece to serve as a support to the reader, featuring a design for the context of readability, reaching out beyond the ranks of the professionals who have been involved to the *third party*: the readership of FormAkademisk. The purpose of the last part is therefore to propose a design for a *support structure*.

The composition of the editorial thereby reflects our procedure – the steps that led to this special issue: from the individual contributions that were blind-reviewed by two reviewers, the permission asked from and granted by the reviewers to have their names published and the interactions within the group of contributors at a stage when the present editorial was drafted. We are thereby leading our readers from the individual contributions to the present issue as an 'anthology'.

In the readers'/viewers' guide we develop a 'support structure' (Condorelli, 2009) via the diagram used by Rosalind Krauss (1979) to map her topic by returning to Marc Barbut's piece on the logic of this diagram (1966) and by developing it for the purposes indicated by Schwab and Borgdorff (2013) in an anthology devoted to the *exposition* of artistic research. We thereby make a bold attempt to address the agenda of 'artistic research' through the intermedium of *drawing*.

This special issue on drawing is bi-lingual – English and Norwegian – in conformity with the policy of the journal FormAkademisk. The presentations below will therefore have the dual role of 1) presenting summaries in English and 2) creating a context for them, according to standard editorial protocol. We therefore hope that our approach will spare English-speaking readers from becoming lost in translation and that they will intercept the cogency of our attempt.

The contributors to the issue are (in order of their appearance below):

- Mathilde Sprovin [The Oslo School of Architecture and Design/AHO, PhD]
- Nina Scott Frisch [Dronning Mauds Minne – Høgskole for barnehagelærerutdanning/Trondheim, PhD]
- Karen Brønne [Kunst og handverk, Høgskulen i Volda, PhD]
- Janne Heggvoll [Kunst og handverk, Høgskulen i Volda]
- Stine Vogt [artist and practicing psychologist, PhD]
- Christian Montarou [Dept. Landscape Architecture and Spatial Planning, Norges Miljø- og Biovitenskapelige Universitet/NMBU, Aas, Artist]
- Karen Disen [Oslo National Academy of the Arts/KHiO, Artist]
- Arild Berg [Faculty for Technology, Art and Design; Oslo Metropolitan University/OsloMet, PhD].
- Hilde Kramer [Institute for Design, University of Bergen, Illustrator]
- Theodor Barth [Oslo National Academy of the Arts/KHiO, Dr. Philos.]

The order of appearance is as follows. Mathilde Sprovin's piece is one we commissioned from her as a pitch for our special issue on drawing: the claims on drawing are multiple and have evolved throughout history. In Norway, the polytechnic and military traditions of drawing were part of the foundation from which artistic, architectural and designerly education grew. Extending these multiple ownerships to the contemporary setting, we have settled on the order listed above.

The theoretical approaches used as frameworks in the studies are rich. They are multiple in the sense that the authors make different *epistemic* claims. However, they also differ on the axis of ontology in terms of the required degree of immersion into the act of drawing – its tools and objectives – both on the part of the readers and from the subjects learned in the context of being taught in *drawing*. At each level of immersion into the field of drawing, the authors inhabit their topic differently.

In the present editorial these differences are ordered on an axis of criticality (Rogoff, 2003), that is, on the axis of the repertoires they seek to hatch, at different levels of immersion

¹. The frameworks, presented below, are simply aids to inhabit each of these levels and make them readable to a *third party*: which is you, the reader. Frameworks 1 and 2 are related to how learning and working with drawing are *prompted*, while frameworks 3 and 4 *parse* these subjects.

The two last frameworks – 5 and 6 – are intermedial in the sense that drawing practices are *folded* into ventures with objectives that are not themselves drawn but are each in their own way served or fed by drawing and are thereby mobilised to explore sensorially fields ridden by historical memories (framework 5) or intermedial in the sense of exploring how the *entanglement* of drawing and writing, with itineraries (as here), can be marked and mapped (framework 6).

Of course, the reader is invited to read and view the articles in and for *themselves*. What is proposed here is *not* a meta- or master-narrative of the issue but a contextual account that may be interesting as a backdrop for discussions amongst the parts of the audience that are in for a *comparative* read. Three alternatives are proposed: A) reading the below presentations and then the readers' guide; B) going directly to the readers' guide and then reading the presentation; C) skip one or the other and go without further ado to the articles in this special issue on drawing.

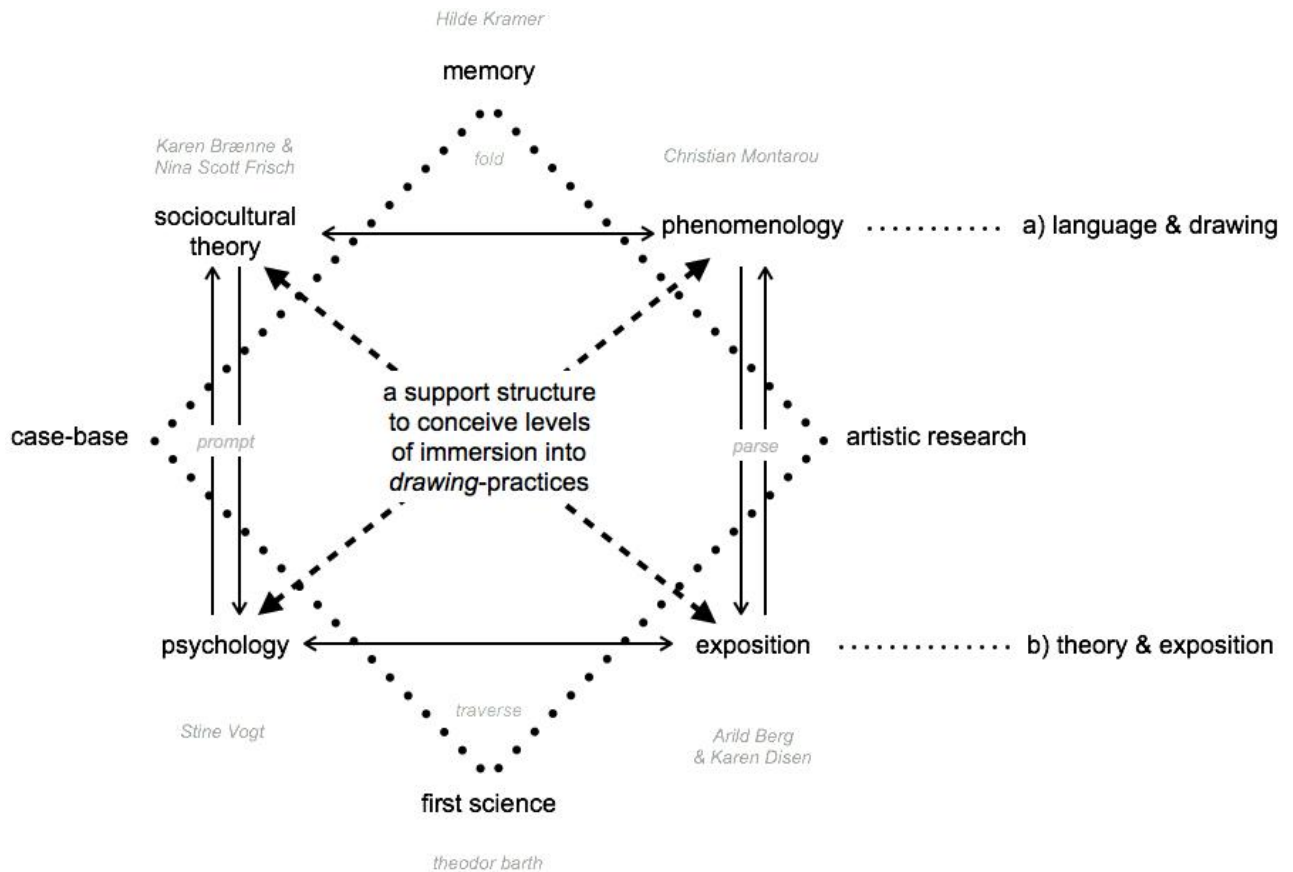


Figure 1. Synoptic diagram summarising the presentations and pitching the readers' guide

Presentation/Outline of the Contributions

– Pitch

Mathilde Sprovin [Oslo School of Architecture and Design/AHO]

Title: 'Tegneundervisning og (poly)tekniske idealer – europeisk utvikling i norske forhold' [Eng. Teaching drawing and (poly)technical ideals – European development in Norwegian conditions].

Though *drawing* as a subject matter and discipline has had a longstanding history in the practice and education of artists, the education in this field came to Norway in the wake of the developments in engineering during the course of the 19th century. Europe was going through changes in the wake of industrialisation – and colonialism – which had a number of consequences, for the way drawing was taught and practised in particular. Drawing became part of the polytechnic curriculum.

The French *École Polytechnique* spearheaded this development. The school was founded (1794) in the wake of the French Revolution (1789) to meet the challenges of building a new society in post-revolution France. In the art academies teaching was organised into two stages, starting with learning by *copying* – and building portfolios – and then introducing live models at later stages. The polytechnic curriculum included descriptive drawing and geometry.

A common denominator across Europe was the timely need to develop good and accurate drawings as reliable drafting formats for real projects. At that time the capital of Norway (presently Oslo) was named Christiania. Though a provisional Drawing School was founded in 1818, the Drawing School in the Norwegian capital had its first set of regulations in 1822. In these regulations it was put forth that drawing was to be the principle on which the school was founded.

In 1888, it was further decided that the school would organise the drawing curriculum into two stages: at the first level the school was to offer an education in geometrical drawing along with projection and perspective drawing, while at the second level the curriculum was to focus on

descriptive geometry and machine drawing. In an earlier version of the regulations from 1869, it was stipulated that the school should focus on machine drawing, with a particular focus on machinery.

From this time on the school's staff included teachers with a background in military engineering, such as Captain Broch. He gave lectures starting in 1819 and took over the school direction in 1851. The Drawing School acquired Julien-David Leroy's *Traité de stéréométrie* in the school year 1854/55. It is further documented that the treatise was in active use at the school, such as in a student work by Harald Frölich in 1859. Then it was officially included through the 1888 school regulation.

Hence the school was originally intended to cover the country's need for technical education, which it did until the Norwegian Technical University College (NTH) was founded in 1910. This heritage at the Drawing School, however, continued far into the 20th century. When, on the occasion of the bicentennial of the Drawing in School in 2018 we focus on drawing practices, it follows that educational setting will be part of our scope, with the scope of *immersion* into the practice itself that is relevant at different levels of education and practice. Hence the articles below.

Framework 1 – Sociocultural theory

1) Karen Brønne & Janne Heggvoll [Høgskulen i Volda]

Title: 'Begynnaropplæring i teikning - ein analyse av teiknemetodar' [Eng. Teaching drawing to beginners – An analysis of drawing methods]

– Level: Grades 1–3

This article is devoted to improving an applicable methodological understanding of the factors relevant to teaching drawing in primary school that *prompt* practise and learning among children from first to third grade. The authors present a historical survey imparting the practices outlined by Sprovin (above) and then move to a discussion of how the subject of drawing is conceived in school curricula according to different theories, the didactics of reading and writing as well as the drawing subject itself.

Though the article stresses emphatically that it is not a literature review, its scope is methodological and aims at distilling outcomes based on a comparative discussion of fairly large scope of referenced sources. It appears first on our list because it can be seen as a position paper in which various positions, in the authors' field of interest, are compared and discussed. Their main focus is on approaches clustered under the umbrella of *sociocultural theory* (Vygotsky).

The authors' primary empirical focus is on curricula and teaching in primary school. The categories lean on the field of education in reading/writing and the history of education, through which they developed into curricula and teaching practices from the beginning of the 19th century onwards: from academic approaches to teaching drawing to didactic approaches focused on practices initiated amongst the children themselves, highlighting the resistance to drawing amongst teachers.

Here, the drawing practices are conceptually modelled on the institutional workings of the school apparatus in a variety of fields (including drawing). The authors initiate their search with a broad exploration of what has been written on the subject matter of drawing education in primary school, from which they work to distil their own (synthetic) position. In their study, they have been concerned with how progress is structured, contents are built and theoretical frameworks compared.

They query whether the lessons from curricular practices in reading/writing in the above-mentioned areas can benefit the education in drawing by virtue of the systematic sets of approaches and overviews in that area. Amongst relevant theoretical frameworks they discuss phenomenology (Husserl) and cognitive constructivism (Piaget) Do you perhaps simply mean “, with cognitive constructivism serving as a bridge between phenomenology and sociocultural theory (Vygotsky).

The authors contrast the phenomenological approach to teaching drawing with analytic and synthetic approaches: the diacritic is the presence/absence of planned steps. Furthermore, while the analytical approach relates to given contents, the synthetic approach is more focussed on the drawing

process (and what might come out of it). With its overall foundation in the sociocultural framework, the article stresses an eclectic approach to the three frameworks used as didactic supports.

2) *Nina Scott Frisch [Dronning Mauds Minne – Høgskole for barnehagelærerutdanning]*

Title: 'Modelling as a foundation for creativity'

– Level: 9–11 years

The article is less grounded in curricular practice, teaching and learning the subject of drawing, as it relates to case material from a local school on a Norwegian island (Vega) from the author's doctoral work. From a case-study of 61 children – ages 9 to 12– she goes into the details of a selected case that visually models the point she develops in the article: that the repetition and permutation of models the children have in their repertoire can be creative.

She founded this assertion on the idea that she calls the 'four c model of creativity' – developed by Kaufmann and Beghetto (2009) – thereby indicating that creativity can unfold in socioculturally differentiated realms, ranging from the great pieces that have left their mark on art history to the creativity of everyday life. Her framework is sociocultural in that she argues from Vygotsky's theory of creativity, which is based on learning from knowledge developed by others.

Her interest is not in given tasks but the children's own initiative: model-based drawing based on repetitious practice; the influence of a big sister; drawing exercises of their own, such as from geometry class, peers they admire, colouring books, etc. A pattern of making and socialising, where repetition – and composition based on the permutation of fixed/stable elements – is pervasive and dominates. On account of its lower status it is typically accompanied by a bit of bad conscience.

The author discusses the implicit hierarchies prevailing in cultural attitudes to drawing: what is considered to be a superior approach to creativity in drawing, particularly in modernism (Lowenfeld, 1957) and, concomitantly, the practices that are considered lower and stifling to creativity. She launches a debate on this topic, supported by the writings of the Norwegian composer and philosopher Helge Iberg, who sees a deadlock in modernism.

The article offers a case that challenges the idea that copying from existing models is academic and stiff; the author counters that it is not as long as the models are selected and worked on from the sociocultural context of children (in her selected age group) rather than imposed by the teacher. She points out how repetition – and compositional permutation – may be highly instrumental in helping the child to locate and discover the creative challenge, whether it is creative with a big C or a little c.

Lev Vygotsky's activity theory has been compared with George Herbert Mead's symbolic interactionism in the United States. A less obvious, but no less interesting, parallel is with Henri Bergson's philosophy, which was particularly well formulated by Gilles Deleuze in *Difference and Repetition* (1968), in which he states that repetition is a universal approach to the singular. If we see the singular as the design – the purpose and query – of repetition, it can move the field of drawing.

Framework 2 – Psychology

Stine Vogt, PhD [Independent]

Title: 'Experimental psychology and visual artwork: Notes from the laboratory'

– Level: Across the age spectrum

Here the level of immersion into drawing practices moves to the psychological realm, which is not opposed to the sociocultural framework – since it combines physiological, cognitive and deep-psychological factors in its analyses of human activities. Rather, it presents itself as an involution of the preceding topic as the author emphasises the *drawing process* rather than its outcomes, even when these are at a professional level of skill. What can artists learn from experimental psychology?

The author's approach to her subject matter is systematic: she departs from Daniel Kahneman's (2012) identification between two gross, functionally distinct, systems in the brain (Systems 1 & 2) and works her way through Kosslyn's (1987) identification of two processing modes

– called ‘categorical’ and ‘coordinate’ – to land on how visual perception is shaped by the education of eye–hand communication in drawing, more broadly in people with an education in *visual arts*. Visually educated people display a *distributed* eye-scanning pattern in their pictorial perception more than lay wo-/men, whose eye-scanning tends to be locked to areas around a central motif (rather than the composition of the entire picture). The process of developing this sort of pattern hinges on the strategies of processing the input as a drawing is worked on, alternating between coordinating and categorical ways of processing and mobilising different parts of the brain.

She substantiates Kahneman’s distinction between System 1 and System 2 – the first based on a sensorial operating procedure (fast), the second on a linguistic operating procedure (slow) – by referring to experiments in which the two corresponding brain layers (brain-stem and core areas vs. the cortex) are alternately inhibited and stimulated. The experiments demonstrate how the two systems work separately but also how the two brain halves are functionally conjoined.

Herself being educated and practicing as an artist, she takes an interest in *object constancy*: perceptual *constancy* relating to coordinate parameters of size (as in perspective) and categorical parameters of colour (as when comparing different prints of the same motif). There are a number of perceptual habits that are unlearned in the process of acquiring a visually distributed intelligence. She thereby places art-education in the scope of the broader education of human beings.

The conjoint output – her experience of the art field as a practitioner and the experimental material that *prompts* an understanding of the art process – contributes to what one might understand as reading ability in visual competence: reading ability, understood in the expanded sense of a distributed visual intelligence, is also required to assimilate a variety of *texts* (both literary and academic), which may be hard to come by through means other than a sensorial education.

Framework 3 – Phenomenology

Christian Montarou [Norwegian University of Life Sciences

Title: ‘Hvordan øke bevisstheten om den førspråklige dimensjonen av det kroppslige nærværet i tegning?’ [Eng. How to increase the awareness of the pre-linguistic dimension of bodily presence in drawing?]

– Level: University college

Following the trail of immersion into the act of drawing, this author’s article leaves a primarily epistemic frame of reference by introducing the *ontological* level of drawing, in which the process of drawing certainly is core – as in the preceding article – but where the pursuit of the way things are, how phenomena appear (the drawing body in particular) in the present terms of a *field* introduces the phenomenological framework, featuring references ranging from Merleau-Ponty to Derrida.

The shift of perspective from the sociocultural to the phenomenological framework is conceived – both in this article and in the first article – in oppositional terms. In the scope of this editorial, the phenomenological framework has to be presented on its *own terms* to be presented at all. This is precisely what the author does as he distinguishes his framework from the sociocultural one to *parse* the step-by-step methodology of establishing a foundation for drawing.

In effect, the piece is complementary rather than exclusionary in the way it positions itself in opposition to the sociocultural framework. It is part of the structural pre-requisites for a methodology of drawing – emphasising bodywork – that *leaves behind* the Platonic legacy of elementary geometrical forms, the semiotic coding that links drawing to language *and* the idea that the virtual world of drawing is separate from the actual space in which his students work.

His students are at a university-college level, and the author’s approach to drawing is a call for foundation studies in the art field, where the foundations sought are revealed to the students through their own work. The steps of his methodology develop their awareness of a *third space*, in which a pre-linguistic sensitivity is cultivated at the interstice between the physical body in real space and the lived body where the interaction with the cognitive apparatus is experienced.

Through the act of drawing the potential of this third space is *specific* – rather than generic – with a potential for the students to make discoveries both about the ambient milieu and about themselves. In this author's approach to drawing, creativity as a journey towards the specific and the practical knowledge of the cognitive apparatus's affordances is discussed against the backdrop of Daniel Stern's developmental psychology in infants, on preverbal/body intelligence. Furthermore, in Roth's scope of *five rhythms* (Roth, 2003) the register of communicative affordances in the body is energetic (rather than verbal). At the level of theoretical reflection, this article is similarly scoped in its design of four chapters: 1) gauging his theoretical references against the backdrop of his experience as an artist and a teacher, 2) discussing pedagogical examples from his own case-base, 3) mobilising a pre-linguistic knowledge in drawing-activity and 4) developing drawing as a perceptive tool in the Japanese-inspired 'Kanken' method.

Framework 4 – Exposition

1) Karen Disen & Arild Berg [Oslo National Academy of the Arts/KHiO, Oslo Metropolitan University/OsloMet]

Title: 'Striper — sett i lys av Schillers ideer om menneskets grunndrifter i form' [Eng. Stripes – Seen in the light of Schiller's ideas of basic human drives in form]
– *Level:* Trans-border—within and beyond the school-space.

In this co-authored article on Schiller's idea of human drives in form, materials and play, the topic of repetition as a journey towards the *specific* is discussed in terms of *stripes* as a kind of visual algorithm (featuring repetition). Stripes therefore are not limited to the case-based examples that the authors mobilise in their discussion of Schiller but is also reflective in the way the article is organised. The distributed intelligence of their visual display reverberates in the text.

In effect, the piece is a playful read where the aspects of stripes as material and form communicate freely through the entire piece. The visuals are picked up by the text in a way that is suggestive of the following possibility: that *visual intelligence* can operate as the theoretical backdrop of *text* rather than the other way around (Ingold, 2007). The visual research as expanded in the text therefore yields a particularly striking example of *exposition*: argument in display.

The article establishes its topic in the tensional field between stripes as a pattern of evil – the Devil's pattern (Pastoureau, 2001) – and a recurring pattern in, for example, the attire of royal families in Spain (Sekules, 2003). The tension of this twilight-zone is preserved as a driving force in the author's aesthetic inquiry into Schiller's three-score drives: form, materials and play. The reader cannot rest her foot anywhere but must accept that the readability of the piece hinges on her ability to act on the same terms of mobility as the authors in their richly imaged topic. Stripes are rhythmic.

The authors ask: is it possible to deepen the understanding of Schiller's concept of *drive* through examples of stripes in art and everyday objects? The authors' approach reflects that both are artists' and designers'. Their concept of stripes is neither formally nor materially generic; it is specific and comes out as a *variety* (rather than a collected sample of empirical examples of the *same*), which is why the visuals propose an understanding of Schiller, based on enactment.

If stripes are a part of a timeless universal composition, it is as a zone of entanglement between their formal and material aspects: a play-zone. In effect, the piece brings immersion into the act of drawing one step further: immersion into the visual, learning how to see, as in the preceding article, but what is learned hits back into what is expression – linguistically – in the medium of text – an example of what Chus Martinez (2012) coined an 'artistic proposition'.

The article quotes one of the one-liners Karen Disen is known for in her teaching-practice- 'To students one may say – learn how to rest in resemblances, what can be recognised, as you may then sense the differences, the visual qualities'. This is a turning point since, as the authors assert, the human being as a whole is affected by form while only in part by the contents. In Schiller's perspective the enactment of the threescore drive is also a key to social change and freedom.

2) Arild Berg [Oslo Metropolitan University/OsloMet]

Title: 'Participation in hybrid sketching'

– Level: Trans-professional

Here we are moving into realm where drawing is practised as sketching in the context of building construction, in the author's terms, as a mediator between people who work to create something together. The author's case-base is from a public art project developed within a larger architectural development plan for a residential area. Now the notion of immersion into the act of drawing is brought one step further: the author underscores the hybridity of drawing in multidisciplinary teams.

Drawing – in the modus operandi of *sketch* – no longer serves the *sole* purpose of teasing out a playful entanglement of form and materials (here, ceramics) but is also used to understand a range of *situations* that are characteristic of large professional projects with interdisciplinary exchange. Using visual means to bring clarity to an idea is also the testbed of possible misunderstandings (linked to the choice of digital/analog interfaces, the pitfalls of overdesign and so on).

In the framework of Vygotsky's concept of proximal development, the author analyses the differences and interlinkages – the essence of 'hybridity' – in what is mastered individually, what is learned conjointly and what is beyond the scope of understanding at different points in time (pending on the maturity of the project and the state of collaboration in teamwork). The author is bent on communicating not only how things can be known in such projects but also how they *are*.

The article unlocks the idea of sketching from the acts of pen and pencil alone but rather contrasts these with digitally supported sketching tools – such as SketchUp – and how they interact in developing a sense of the public art project: in the core team and with the development planners. In the author's terms, the scope is to deepen the understanding of what a sketch can be, by expanding the typology of what it can be to draw a sketch in a collaborative process.

His purview is to spur a methodical approach that can identify new concepts emerging from practice (which is similar to the claims made in the preceding article for visual intelligence). As gauged by Vygotsky's zone of proximal development, learning from practice will inevitably combine chance elements with negotiated and unknown ones. Paradoxically, it is possible for humans to develop a common sense in which these factors are joined as they become mature.

A distinctive trait of this level of immersion is that the readability to a *third party* – beyond the team and its professional environment – becomes cogent in the sensorial realm as the acts of making move beyond what is artistically pleasing and professionally coherent to pass on a sense of the work with a broader public in mind. To the same extent as the constraints of a project – local and human – canalise externalisations in sketch, new realms of subjectivity emerge:

The technique here was to cast into plaster moulds and cut in drawings in leather-hard porcelain with a thin knife or needle. Then the cut lines were painted over and filled with different types of line colours, such as copper oxide and iron oxide. Then the tiles were washed off so that only the lines were left, dried and fired. Copper gave black lines and iron went brown. The details in the porcelain materialised into lines. Being able to touch and follow the lines in the material enabled a physical connection to the material and to the drawing. The environment should enable a fusion of just walking, sitting and perhaps experiencing art as a total experience with no specific start or end (A. Berg, this issue).

Framework 5 – Memory

Hilde Kramer

Title: 'Når tilskueren tegner – Minnehandlinger og formidling av sensitive emner i 21. århundret' [Eng. When the bystander draws – Memory acts and the mediation of sensitive topics in the 21st century]

– Level: Generic (lay wo-/men)

In this article, the author presents yet another level of immersion into the acts of drawing: as in the preceding article the distributed awareness of ‘relational aesthetics’ is emphasised. But in this author’s project – contemporary memory acts devoted to holocaust victims – the participants included people with little/no experience with drawing or were untrained in terms of drawing education. Her perspective on drawing is elementary: the point of drawing is testimonial and locational.

Drawing is used as a vehicle of *civic awareness* to intensify the awareness of forces – political and ideological – in areas of the historical past that are traumatic to the degree of being relegated to the *unknown*. In her case-base, from a participatory art project called *This is a Human*, the author expounds the steps of how chance elements (stones) are wrapped into sheets with archival information on named holocaust victims and how drawing negotiates an act of memory.

The stones wrapped into the archival sheets are chance elements in the sense of being stones of a particular shape, material structure and touch. At the same time, they are symbols of remembrance of departed people in Jewish culture. The act of drawing here features as a zone of entanglement between two disparate events: the stone and the departed person. It provides a setting in which other archival materials – such as photos and maps – become part of the project’s life-world.

Through drawing, each participant departs from their current comfort zones to delve into the contact zone of *remembrance* – not as realm of the past but as realm of the contemporary (Agamben, 2009). In this sense, the project *This is a Human* is not bent on the aspects of drawing that are involved in making, moving the manufacture of objects that populate the field, but in moving the *field*. As a professor of illustration, the author is working directly on the *Zeitgeist*.

The article takes the reader step-by-step through the project conveying a sense of the vitality in the project through the intermedium of the written format. The links developed through this process clearly move *beyond* the zone of proximal development (Vygotsky, previous article). Her work rather resonates with contemporary developments in quantum theory – featuring, for example, Laruelle (philosopher) and Barad (physicist): the knowable is entangled with the experimental apparatus.

This means that the archival approach of monitoring the exceptional events of the holocaust, and the live events connecting to the holocaust as a state of urgency, are alternate cuts into the fabric of historical memory that cannot be merged but can be parsed in a step-by-step fashion, of which the article gives a rich narrative account. The lessons learned here come neither from visual aesthetics nor from professional practice but from enfolding *contact* through drawing.

Framework 6 – First science

Theodor Barth

Title: ‘Drawing as performance – The greenroom: A new perspective on empowerment through education’

– **Level:** Generic (research-professional)

In the last article of the special issue, the author immerses the act of drawing into the zones of its linguistic entanglement with writing. It explores this linkage between drawing and writing – in that order – in artistic research phases that come prior, in between or in the aftermath of more articulated *practices*: scientific, artistic and philosophical (SAP) practices. The article seeks to move the space of experimentation – featuring the preceding article – into the space of higher education.

The article is organised around the core of an experimental case study presented at the E&PDE² conference in the autumn of 2017. In the present article, this case study is located in the school environments of the Oslo National Academy of the Arts (KHiO) and the Oslo School of Architecture and Design (AHO). This space is conceived as a ‘temporary autonomous zone’ (TAZ) (cf. Bey, 2017) or, in the vernacular of the article, a ‘para-site’ (cf. George Marcus).

This ‘stealth-mode’ was enhanced by the fact of project being a *con amore* one (without the support of any funding institution). We thereby bring to light that activities of this kind take place regularly within/between art schools but often not under the banner of *research*. By claiming the

experimental case study as research we determined two things: (a) a range of valuable research may need to claim spaces of this kind; (b) it needs to be staged to come out as research in the school arenas.

The article elaborates on the latter point (b); the last bit of staging features a *third space* between a TAZ and the public front stage, called the *greenroom*. The article therefore begins and ends with the greenroom – as the TAZ/para-site is left to its own means in the *middle*, it thereby combines the distributed *and* core foci discussed by S. Vogt in her piece. This arrangement is set up on the theoretical backdrop of Goethe's Bildungs-journey and Laruelle's concept of first science.

In the core of the article – the experimental case study – the drawing skills range from professional, educated to amateurish. In the scope of the case, however, this is deemed inessential – the point being to demonstrate how different strategies related to subtractive drawing present a variety of outcomes in how information from the drawing process is encoded into ontological data. The coordinate function of line-drawing and the colour as a categorising agent concurs with Vogt.

Other parallels with the baseline of art education are present in the article, for instance, alternating between 'greenroom' and 'TAZ' is directly comparable to the process in which the artist alternates between engaging with the visual process and taking a step-by-step awareness of the result. The difference resides in the fact that this article asks what happens when writing is involved in artistic practice – thereby included into the basket – such as *empowerment* through education.

Readers'/viewers' guide (cf. Figure 1)

The variety of perspectives featured in the contributions to the present issue mainly reflects the different ways in which drawing is conceived to operate and apply in *different* learning environments, ranging from how drawing parallels language education in primary school curricula, its claims for autonomy in higher education, the role of choice in the visual process and the strategic choices linked to drawing in trans-professional project teams to drawing as a performative.³

All of the contributions to this special issue of FormAkademisk tease out what they have to say about drawing linked to *learning*, whether related to the introduction of the topic in early school-years, educational programmes targeting drawing specifically, its informal uses in the context of the digital culture, its negotiated and makeshift place in the professional setting of real projects or its potential role in the contact zones of historical memory and repertoires of *criticality*.

The emphasis is on how learning and drawing come together in different educational settings: whether education is seen as the province of scholarly institutions or is built into the repertoires of life-long learning and its corollaries in public culture as a vehicle of historical inquiry and civic autonomy. At the compound level of the anthology (special issue) the contributions differ in how drawing is seen to relate to linguistic, semiotic, cultural and embodied repertoires.

Though the articles initially evolved as isolated endeavours, 'blind' of each other, they are comparable in that, in one way or another, they are located in what one – from lack of a better term – might call a 'contact zone' (Pratt, 2005, p. 519): social spaces where learning cultures meet, sometimes clash and always grapple with each other, and regularly in contexts of highly asymmetrical power relations, such as (notably) the relation between drawing and writing.

The concept of 'contact zone' is introduced here to prompt the reader's reflection on the rank of drawing and writing in the hierarchies of contemporary knowledge practices, whether in the arts or academia. And, clearly, the contributions to the *special issue* are no exception: though all the contributors have experience – some of them extensive – with drawing, the vehicle for theorising case materials relies heavily on *writing*. But how do we locate the research if not limited to writing?

Evidently, the amount of work we have put into selecting and editing the pictorial elements in the special issue will also legitimately claim research value. In this context, a laudable attempt has been made by Michael Schwab and Henk Borgdorff (2013, p. 15) to invent a locus of conjoint exposure that they call 'exposition', with the intent to *bridge* between the ontological focus – verging upon a 'myopia' characterising some artistic practices – and an epistemic outlook:

With the notion of ‘exposition’, we wish to suggest an operator between art and writing. Although ‘exposition’ seems to comply with traditional metaphors of vision and illumination, it should not be taken to suggest the external exposure of practice to the light of rationality; rather, it is meant as the redoubling of practice in order to artistically move from artistic ideas to epistemic claims.

The reader will notice that, as an analytical dimension, the exposition is less apparent in each of the *individual* contributions than when they are *compared* with each other. To encourage a comparative reading, we invite you (the reader) to bring a broad reflection on the *exposition* with you as you engage in looking through the issue and going where your interest takes you. Since each of the contributions are – in the sense accounted for – a battleground or a contact zone.

The ‘contact zone’ opts for the compound perspective – rather than looking at the written article as the actual vehicle of knowledge and the pictorial materials as ‘supplements’ – where there is struggle, yes, but no victor nor final conquest. It is the *diagrammatic intelligence* that then becomes the chief variable of the ‘exposition’ in this special issue: ‘diagrammatic’ in the sense of the *cross-(dia-) marking* (grammatic) when drawing and writing are combined in a *third* practice.

Each article conjoins a written path and a pictorial trail in an exposition which is unique to it. From a design perspective this conjuncture may well come out as the *signature* of each piece, and its interest resides in the extent to which the choices made by each author reveal the footprint of the subject matter – the case material, or the field of interest – developed by the contributors. The exposition unravels as soon as the articles included come out as *performances*.

To encourage the reader in this direction we have developed an outline of possible connections between the authors with a selection of tools sampled from their contributions. Whether the reader uses this structure, or invents her own, contraptions of this kind operate as two-way ‘valves’: working in one direction as a navigation instrument – coordinating her readings and moving with them – while working in the other direction as a categorising device.

If the contraption is conceived as a ‘hydraulic pump’ – with the push-and-pull of the two-way valve – it will stabilise, at some desired level, when the reader/viewer works her way through the compound of this special issue. This is her learning outcome, and there is no way we can predict it. But we can suggest it and create a support structure (Condorelli, 2009) for it. Céline Condorelli and Gavin Wade conceive such a contraption as an architectural device:

Support Structure is an architectural interface. Support Structure aims to create a space which is continuously reinvented by its users in relation to its context. Support Structure houses artefacts as well as activities and aids reconsideration of existing spaces as an impulse for future change. Support Structure is an evolving collaborative project between architect Céline Condorelli and artist-curator Gavin Wade. Our aim is to design and create a universally adaptable support structure that approaches the specific rather than the generic. To achieve this we are putting Support Structure through a learning process.⁴

In sum, we conceive the device below to act as a ‘support structure’ of this kind, as one likely to develop onwards with the learning process we experienced – in the last stages – when working with the issue, and hopefully also the learning process the reader will engage by working through it. The diagram featured here, as a support to develop the exposition of each contribution, has a history in the project that goes back to R. Krauss’s piece (1979) *Sculpture in the Expanded Field*.

The almost canonical status of this essay in the art field has to some extent locked the diagram to her piece in the minds of many readers. However, as she clearly indicates, the diagram derives from the *Klein group*: a mathematical concept which Barbut brought to the attention of the arts & humanities in his 1966 essay in *Les Temps Modernes* on the meaning of the word structure in mathematics as well as by Greimas & Rastier in ‘The Interaction of Semiotic Constraints’ (1968).

Varieties of the diagram are found among the French structuralists. The simplest analytical definition of the Klein group – named after the mathematician Felix Klein – was given by the anthropologist Claude Lévi-Strauss: (1) a term (2) its opposite and (3) their inversions.⁵ We found

this concept useful in working with the special issue on account of sociocultural theory and phenomenology that are defined by the authors in *oppositional terms*. We derived two inversions.

We proceeded in the following way: where one of the proponents of the *sociocultural theory* strand of research on drawing in education opted for an *eclectic* approach to theoretical perspectives falling short of sociocultural theory (e.g. phenomenology), a different author ventured a *psychological* approach bent on understanding the outcomes of choices made in the artistic work process – mobilising different parts of the brain – with an impact on visual competence.

Choice-careers—how we fare in life through the choices we make—define *empirical* developmental trajectories, while eclecticism is a position on the *principle* of applying different approaches when teaching. The principle of ‘eclecticism’ and its application in *choice* yield clearly distinct theoretical frameworks – but one which their underlying unity makes productive to compare – which is our point in developing the diagram as a support structure. In relation to the *phenomenological* framework, we define *exposition* as an inversion.

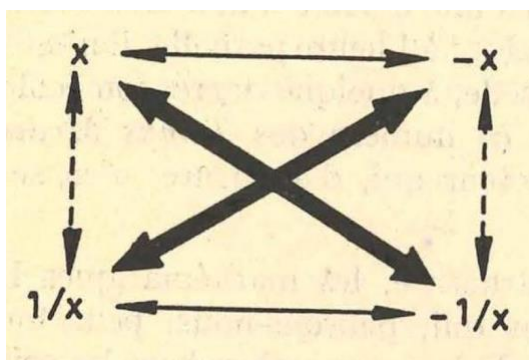


Figure 2. The Klein group: a term (x), its opposite ($-x$) and their two inversions ($1/x$ & $-1/x$) (Barbut 1968, p.792). The article explains the concept of structure in mathematics and the relevance of Felix Klein’s mathematics in the arts and humanities. It was published in *Les Temps Modernes* in 1966 for a broad intellectual audience.

This is justified by the following: while the phenomenological approach is modelled on human awareness – such as embodiment – it is not psychological (though it certainly is not defined in oppositional terms to psychology). The stepwise analysis of the development of drawing skills, the article using a phenomenological framework, presents a model of/model for the development of drawing skills. The exposition piece makes two patterns – drawing and written – correspond.⁶

In effect, the piece developed by Karen Disen and Arild Berg is devoted to the topic of bands, or stripes. The parallels between the visual topic and written medium is obvious; however, their approach to teasing out their topic – in the conjoined visual and textual presentation – is striking in that it features a distributed visual intelligence, which is likely to prompt visually skilled readers, working simultaneously in the written and visual display. In other words, the piece is *expositional*.

It makes a display of a core issue developed from a psychological vantage point in Stine Vogt’s piece – that visually educated people have visually distributed eye-scanning patterns – in the same way as Karen Brønne’s piece brings choices that are stated on eclectic principle, which means that although the relation between sociocultural theory and phenomenology is characterised as oppositional, it is located in a play of differences somehow *holding* each other.

In other words, the terms held by the foursquare core element of the diagram are performative in the sense of how they agglomerate as a ‘neighbourhood’ in the special issue, if seen as a compound (i.e. as an edited anthology). The four elements of the square are used to map the contributions of Karen Brønne (sociocultural theory), Stine Vogt (psychology), Christian Montarou (phenomenology) and Karen Disen and Arild Berg (exposition): they are categorising/coordinating.

The categorising and coordinating functions are recruited from Stine Vogt's article. They parallel an article by Kjeld Schmidt and Ina Wagner (2004) on 'ordering systems' based on a study of architectural studios: they distinguish between 'navigation systems' (coordinating direction), aiming at the navigation in architectural drawings, and 'classification systems' (categorising direction), aiming at storage and retrieval. As they become entangled they also become specific.

That information systems (Schmidt & Wagner, 2004) come up with similar results to those of brain psychology (Stine Vogt) should perhaps not surprise us. But that the economy of systems that derive from oppositions – as in the Klein group – can be in/out of order is a more tricky point. The concept of ordering systems suggests precisely this. Does this rely on an aesthetic judgement, is it a matter of taste or are there other ways to understand cogency/consistency at this level?

Though Nina Scott Frisch's contribution is placed under the heading of 'sociocultural theory', which is her chosen platform in the article, she moves from there towards the middle in the importance she attaches to models in creative learning. In her piece, models are not based on rote imitation since it hatches in the physical absence of its referents. The drawing child, in her case study, does not imitate earlier drawings but produces from gestural memory.

Similarly, Arild Berg – in his second piece on drawing in trans-professional teams, based on a case study of decoration project in a public space – analyses drawing as an expositional device: not before a board of academic/funding peer-reviewers but the step-by-step phased encounters between a variety of professionals with different tasks at different occasions. It shows the ways in which the knowledge we have, as individuals or in pairs, also links with what we do not comprehend.

There are pitfalls in this human knack of linking up with what is beyond our reach. But understanding how it happens – in collaborative processes that are complex – is demonstrated in his piece as a specific affordance of drawing (even as the concept of drawing is expanded, as in his article). Moreover, it may serve to demonstrate how the purview of moving our discourse from artistic ideas to epistemic claims need not be based on the idea of an audit before a 'tribunal'.

Indeed, the idea that initially contradictory positions can be developed in a pattern where they *hold* each other – such as in a 'holding pattern' (Barth & Raein, 2009) – proposes a learning strategy where exposition can hit and impact at a variety of different junctures, where *decisions made* and *understandings reached* occur simultaneously. They do not have to happen before a privileged instance nor at one point in time, bringing a distributed intelligence into the equation.

These are by no means new ideas but were formulated by Jean-François Lyotard (1981) in his reading of Wittgenstein's *Philosophical Investigations* (1953/2009): all word games have an *addressor*, an *addressee* and a *referent*. Language games are defined by rules – they do not mix but cohere through *synopsis* and 'family resemblances'. In sum, within synoptic field there are contentious claims that do not go by the rules but will seek the status of meta-discourse. This is the 'contact zone'.

This is what Lyotard (*ibid.*) calls a tribunal. May we foresee expositions that are successful in overcoming such attempts at structural (*panoptic*) annexation? The two contributions featured at the top and at the bottom of the diamond shape: H. Kramer's and T. Barth's contributions. They both constitute attempts at making cuts where common practice says there can be none (Barad, 2007). They are backdrops to the Klein group rather than elements of it (Barad 2007, p.114):

The boundary between the 'object of observation' and the 'agencies of observation' is indeterminate in the absence of a specific physical arrangement of the apparatus. What constitutes the object of observation and what constitutes the agencies of observation are determinable only on the condition that the measurement apparatus is specified. The apparatus enacts a cut delineating the object from the agencies of observation. Clearly, then, as we have noted, observations do not refer to properties of observation-independent objects (since they don't preexist as such).

Kramer's and Barth's contributions are based on a working assumption that theorising should be immersive and that the research outcomes should be immersive and field-intensive. 'Field' not in the

sense of a professional field but field in the sense of ethnographic fieldwork. If we are pledged to engage with distributed intelligence – and learning-mobility – in our field studies, we should develop diagrams accordingly: hence the distributed visual intelligence of the diagram above.

There are many other diagrams – and more complex visualisations – that could have done this job. That this diagram has been chosen is on account of the relative simplicity in how the *processing* done with the square can be *harvested* in the diamond. Indeed, if the rules that work to hold and categorise *information* (and differently so in the four positions), this way of processing positions based on opposition – and holding contradiction – will yield *data* facilitating coordination.

The point is that it cannot do these two things at the same time, but it can alternate between them – as part of a learning process – till an unstable equilibrium is reached, and a choice must be made. Choices will bring the system to a new irreversible state. It is in this sense that Rosalind Krauss's piece had the impact of an exposition: the changing field of sculpture fed her piece, and after the piece the field of sculpture would not revert to earlier positions.

In sum, dear reader, we seek to establish a distributed visual intelligence into contemporary evaluation practices and move it away from centralised and focal ones. Our idea is that this may give artistic research the chance of moving the field (rather than being bent on bending the rules). You, the reader, may move the field. And with this call we are not content in expanding artistic ideas with epistemic claims but to rally for an 'ontological turn' in the arts.

To avoid proclamatory clichés let us make this point: when Lévi-Strauss (1964–71) proposed his elementary definition of the Klein's group, it was part of his argument for what he called the 'exhaustive method'. It was at a time of his life when he had *abandoned* fieldwork in favour of extant ethnographic *readings*. From a fieldworking point of view it was – and has ever since been – obvious that this was *not* a method to develop a theory but a way of *organising* readings.

It is in this spirit that it has been presented here: if we have succeeded in prompting an effective reading style – which is about organising, navigating, classifying and categorising – then we have succeeded in our goal. The reader is at no point obligated to accept an underlying structure as a premise for the way she proceeds: what emerges on her path does not happen because it is important but is important because it happens – if such is her contract.

The reader is a choosing agent. If we do recommend the above contract, it is for a specific reason: it is not to underscore the importance of choice in the universal mercantile sense – where the terms of choice are predefined by commercial ontologies – but because she is pledged to be on speaking terms with reality and set her mark on its history. The idea that reality has a history, not only in the human minds thinking of it but in material practices/in matter itself is worthy of inquiry.

The tracery on two levels – language and design – featuring the development of diagrammatic intelligence, is likely to move the field (rather than just bending rules). Moving the field is not limited to bringing understanding to a subject matter of interest and establishing a foundation for how we can claim this understanding (i.e. epistemology); it is to bring intensity to ways of being-in-the-world that we otherwise would bypass, and hatch *artistic claims* for them (i.e. ontology).

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Editor of the Special Issue,
Theodor Barth

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² E&PDE – acronym for Engineering and Product Design Education.

³ Cf. performative in counter-distinction to constative in Austin's (1955/2005) canonical work *How to Do Things With Words*.

⁴ <http://www.supportstructure.org/>

⁵ Lévis-Strauss, Claude (1964-1971). *Mythologiques*, Paris: Plon. Definition found in multiple places in this four-volume œuvre.

⁶ The word 'correspond' is here used in the double sense of convergence and communication (e.g. correspondence as in mail).