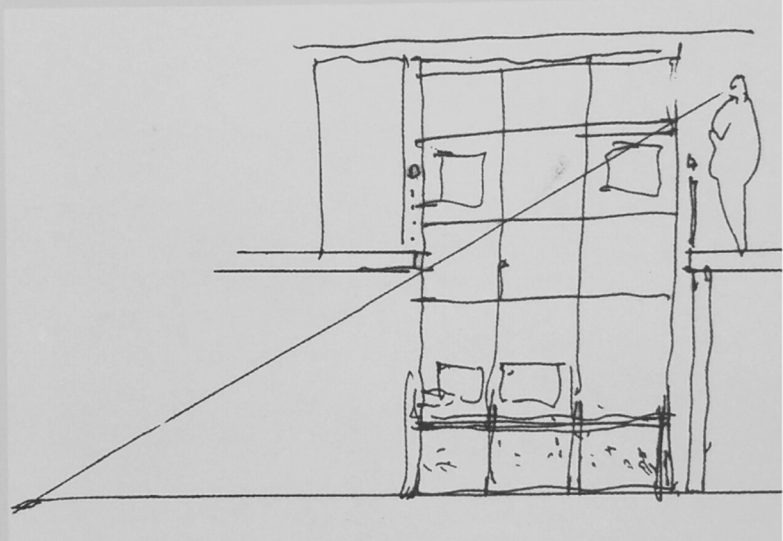


C O N · T E X T

Liv Merete Nielsen

Drawing and Spatial Representations



Reflections on Purposes for Art Education
in the Compulsory School

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Liv Merete Nielsen

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I have been a professional practitioner in the art education field for almost twenty years, and I have experienced the need for research within art and design in order to develop the field. Through my six years as editor of the national journal for art and design teachers, I was privileged to get to know the field at a national level, and I was further convinced of the need for research in this area. In 1992 *The Research Council of Norway* arranged a conference on research in the arts in Åsgårdstrand, and later engaged the Danish professor Søren Kjörup to promote research by practitioners in the field of arts. Several conferences were arranged in the following years, and I am glad to have been allowed to participate in and be inspired by these initiatives.

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SUMMARY

The aim of this thesis is to contribute new knowledge as a basis from which to discuss the development of and justification for art education in the compulsory school. The experienced drawing curriculum in compulsory school is illuminated through analyses of drawings made by young people and compared with what they say they have learned about drawing in school. This is discussed in relation to theory and the given framework for art and design in compulsory school. During the period studied (1992–1997) the subject *Forming*, included drawing, textiles and woodwork, had as many scheduled lessons as mathematics in middle school (ages 10–13). Despite this, the juvenile's interest in drawing declined dramatically. The youngsters' experiences from drawing activities in school indicate that attitudes from the self-expression movement and the philosophy of hands-off still have an influence on the way Norwegian teachers teach, or rather, *not* teach drawing. Those youngsters who seem to master the cultural conventions of spatial representations had often learned their skills outside school, and there is almost no indication that pictorial representation of space was promoted in compulsory school in the period studied. According to assessments given in the period from 1989 to 1997, teachers seemed to be extremely satisfied with what the pupils accomplished in *Forming*, since *Forming* was the subject where the second best mean score was achieved. Despite this, *Forming* was the subject where it was most rare to achieve a top score and easiest to avoid the lowest. This reflects the teacher's problems in assessing, they have difficulties in giving signals to the pupils on what is a good solution and what is not. This is understandable if self-expression is the aim, as it is impossible to judge one self-expression to be better than another, but it is doubtful if such an attitude promotes respect for quality in art and design. The philosophy of hands-off in drawing in middle school is questioned when seen in the perspective of an extrinsic need for competence inside design and visualisation. Today many important decisions are made on the basis of representations, and the use of representations will probably not decline with an increasing use of computer images, rather the opposite. By taking an example from architecture, the question is raised whether art education in compulsory school is qualified to prepare for visual communication, including both making and understanding. Both the *Norwegian Ministry of Education, Research and Church Affairs* (KUF) and the *Norwegian Ministry of Cultural Affairs* (KD) have seen

the challenge, and are making efforts to promote public interest in design and architecture and thereby prevent design to be an objective mainly for the privileged or for those with a special interest. Compulsory school should prepare youngsters for democratic participation when our built environment is planned and discussed on the basis of pictorial representations of space by focusing on drawing, communication and reflection. Compulsory school reaches all youngsters irrespective of future occupation as politicians, teachers, designers, nurses or directors and their attitudes to art, design and architecture are built through those important years.

SAMMENDRAG

Målet med denne avhandlingen er å fremskaffe ny viten som grunnlag for å kunne drøfte utviklingen av og legitimeringen for visuelle kunsthøgskolefag i grunnskolen. Den erfarte læreplanen i tegning i grunnskolen blir belyst gjennom analyser av tegninger laget av ungdom og sammenliknet med hva de sier de har lært om tegning på skolen. Dette blir drøftet i relasjon til teori og rammefaktorene for visuelle kunsthøgskolefag i grunnskolen. I den studerte perioden (1992-1997) hadde faget *Forming*, som inkluderte tegning, tekstil og sløyd, like mange årstimer som matematikk på mellomtrinnet. Til tross for dette, falt ungdommenes interesse for tegning dramatisk. Ungdommenes erfaringer fra tegneaktiviteter i skolen kan tyde på at holdninger knyttet til selvtillit gjennom tegning og ideen om ikke å påvirke barns tegninger fremdeles har innflytelse på hvordan norske lærere underviser, eller snarere, *ikke* underviser i tegning. De ungdommene som syntes å beherske de kulturelle konvensjonene knyttet til romlige representasjoner hadde ofte lært dette utenom skolen, og det er lite som tyder på at kunnskap om og ferdigheter knyttet til romlige representasjoner i tegning ble aktivt fremmet i under den studerte perioden. I følge karakterene som ble gitt i perioden fra 1989 til 1997, synes det som lærerne er svært fornøyd med det elevene oppnår i *Forming*, siden *Forming* er det faget der de får nest høyest karakterer. Til tross for dette er *Forming* det faget der det er vanskeligst å få en topp karakter og lettest å unngå de laveste. Dette avspeiler lærernes vanskeligheter karaktergivning, de har problemer med å gi signaler til elevene om hva som er god løsning og hva som ikke er det. Dette er forståelig dersom selvtillit er målet,

siden det er umulig å bedømme en persons selvutfoldelse som bedre enn en annens, men det er tvilsomt om slike holdninger fremmer respekt for kvalitet innen kunst og design. Det blir stilt spørsmål ved om ideen om å ikke påvirke barns tegnearbeid på mellomtrinnet er egnet når fokus settes på eksterne behov for utvikling av visuell kompetanse. I dag blir mange viktige avgjørelser tatt på grunnlag av representasjoner, og bruken av representasjoner vil sannsynlig ikke minske med økende bruk av data grafikk, snarere tvert imot. Ved å ta et eksempel fra arkitektur, blir spørsmålet reist om grunnskolen er kvalifisert til å fremme visuell kommunikasjon, som inkluderer både produksjon og forståelse. Både Kirke-, utdannings- og forskningsdepartementet (KUF) og Kulturdepartementet (KD) har sett utfordringene og iverksatt tiltak for å fremme allmenn interesse og forståelse for design og arkitektur og dermed forhindre at design blir for de privilegerte og for de med spesiell interesse. Grunnskolen burde forberede ungdom for demokratisk deltakelse når våre bygde omgivelser planlegges og diskuteres med utgangspunkt i to-dimensjonale representasjoner av romlige forhold ved å satse på tegning, kommunikasjon og refleksjon. Grunnskolen omfatter all ungdom uansett framtidig yrke enten det blir politiker, lærer, designer, sykepleier eller direktør og deres grunnleggende holdning til kunst, design og arkitektur utvikles i løpet av de viktige årene.

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Introduction

There is a widespread attitude in Norway that teaching children to draw is wrong. In my experience as a professional art teacher and art teacher trainer, I have often met this attitude. It is conveyed not so much by the pupils and students, but primarily by the art teachers and art teacher trainers in discussions concerning the development of drawing skills in education. Arguments often heard for the justification of art in compulsory school are that the subject is important as a practical counterweight to all the theoretical subjects in school, and that art education provides practical experience and pleasure. This view is easily backed by arguments maintaining that, since almost anything produced is satisfactory, there is nothing to learn as far as drawing is concerned. Such argumentation, though understandable, does not promote a need for art-educated teachers in the classrooms. Art education as a “leisure-time activity” needs only assistants to hand out paper and crayons and create a pleasant atmosphere for relaxation. However, no art teachers seem to applaud this train of thought.

Almost all children enter the Norwegian school system with a ballast of drawing skills and an enthusiasm for progression in drawing, and one would expect a corresponding development of these skills, since art education has been given a good framework through the Norwegian National Curriculum. However, it is not easy to uncover the same enthusiasm for drawing as in the pre-school years when looking at the juvenile’s drawings from the middle school (ages 10–13) and lower secondary school (ages 13–16). Nor is it easy to find traces of recently acquired visual skills in their drawings. Asking adults to make a drawing

is the same as inviting embarrassment. What has happened? It can *not* have been caused by indifference to children's exceptional enthusiasm for drawing, since children's drawings have been an important issue in pedagogic research, debates and teacher training throughout the last fifty years.

Images, signs, designed objects and artefacts play an important part in our everyday life. In selecting shoes from Italy, a lamp made in Hong Kong, a film from Hollywood, or a house from Moelven, the consumer influences to a great extent the building of our visual culture. We are increasingly creating and realising ourselves through our visual choices: our homes, our artefacts and our clothing. Increased visual literacy in the development of our society will justify a central position for art and design in education, not only for the producers of visual artefacts and information, but for anyone who refuses to be a weak-minded casualty of commercial influences. Some of these choices are personal and will be made over and over again, but the decisions concerning our built environment will remain a part of our common environment for years, and these decisions are often made on the basis of drawings. The development of a capacity for what can be called visual literacy includes both the understanding and the making of images and artefacts. This "making" part cannot be ignored. It can be illuminated with an analogue to language education: It would be absurd to claim that pupils could eliminate writing and concentrate on reading because the writers and journalists would take care of the writing. I contend that if visual literacy is important to society, it should be reflected in compulsory education. Compulsory schooling is meant to be for everyone and aims to educate both for participation in society at basic level and for further studies and professions.

One such area of participation is the built environment. The Norwegian cultural White Paper from 1992, *Culture in Our Time (Kultur i tiden)*, represents a political breakthrough as far as attention to architecture and design in everyday life is concerned and for a strengthening of art, design and architecture in compulsory education. The attitude that laymen do not understand architectural drawings and, consequently, cannot contribute anything of importance, is widespread. But official documents emphasise user participation when our official built environment is being developed, and this might be one of the reasons why the cultural White Paper emphasises the strengthening of public awareness to architecture.

Architects need clients in order to build, and these clients are often laymen in various roles as politicians, directors or individual clients. Lay clients and users are expected to make decisions about buildings, not yet constructed, on the basis of representations like drawings or models. An understanding of drawings and models is an important precondition for democratic participation in the development of our built environment. An understanding of the complexity of the drawings might also generate the client's respect for the professional architect and prevent the client from overrating own capabilities by trying to be quasi-architects. If co-operation is desirable when the environment for the future is developed, then a capacity for active participation based on visual representations must be cultivated.

To prepare future adults for democratic participation when our built environment is being planned and developed is a great challenge for compulsory schooling. Such participation as mentioned will assume a capability for spatial representation and spatial imagination. The art teacher's attitudes to drawing and pictorial representation of space might be illuminated through a discussion on the spatial representation issues. Have art teachers deliberately concealed knowledge about projections and linear perspective from the juveniles, and if so, how can this attitude be explained? Today, youngsters are surrounded by images based on the principles of linear perspective in computer games, virtual reality and pilot simulators on a grand scale. If compulsory schooling is to prepare for democratic participation when our built environment is developed on the basis of spatial representations like drawings, time should be allowed for learning and practising various repertoires for representing space. Art and drawing have no eternally secured position in future national curricula, and can easily be pushed aside if justification for them is not clearly defined and articulated. The changes in society and the subsequent challenges to an educational system that is aimed at preparing juveniles for active participation in our future society will apply pressure on every subject, requiring justification and accountability.

As a long time practitioner in the art education field in Norway, I want to use my insider knowledge and experience as a basis for the discussion of the art education issues. In other words I do not take the perspective of a psychologist, pedagogue, sociologist, anthropologist, ethnologist, or architect, but rather that of a reflective practitioner within drawing and

education. And as a teacher trainer in the field of art education, I have experienced how the lack of Norwegian research with a subject focus has made research-based education on a teacher training level insufficient.

Status Questionis

Both political documents and research done by individuals are important factors when trying to describe status questionis for art education in Norway. The Norwegian government has pointed out challenges for the future with the Norwegian Official Report (NOU): *With Knowledge and Intention (Med viten og vilje)*, from 1988. The report indicated the great challenge that Norway had to face, converting from a country based on the export of raw materials to becoming a highly educated nation with a potential for exporting know-how. Consequently, education and research had to be given high priority.¹ These challenges to education and research have been followed up by several educational reforms in the 1990s. A great reform, influencing more than a hundred colleges, was put into effect in 1994, amalgamating them into twenty-eight public colleges. Art colleges and schools of architecture were given a special position by being allowed to continue on as art- or university colleges, or to merge into the university system.² A new national curriculum for upper secondary school (ages 16–19) was put into effect in August 1994, giving pupils an opportunity to choose drawing and design in combination with general preparatory courses for entrance to colleges and universities. This combination program has made the study of drawing and design more popular for pupils than ever.³ Professional studies for Industrial Design and Architecture at the university level have seen the same increase in interest: there were thirty-five applicants for each accepted student.⁴

¹ Kultur- og vitenskapsdepartementet. NOU 1988:28: *Med viten og vilje*. Oslo: Kultur- og vitenskapsdepartementet, 1988. p. 7.

² In Norway there are two main systems of higher education: 1a) Universities (four universities: Oslo, Bergen, Trondheim, Tromsø) b) Scientific Colleges (six colleges: Oslo School of Architecture, Norwegian College of Veterinary Medicine, Agricultural University of Norway, Norwegian School of Economics and Business Administration, Norwegian State Academy of Music, The Norwegian University of Sport and Physical Education) and 2) Public Colleges (28 in all, including Saami College and two colleges of Art).

³ The share of pupils from Formgivingsfag who choose to enter VK1-Drawing, form and colour with general preparatory courses, is increasing, from 43% in 1996 to 48% in 1997. Based on information from *The Norwegian Ministry of Education, Research and Church Affairs*.

⁴ In 1999 there were 1680 applicants for 47 (35 architects plus 12 industrial designers)

While earlier cultural White Papers had focused on preservation, *Culture in Our Time (Kultur i tiden)* also focused on contemporary culture, and on how a nation with cultural ambitions had to strengthen art and design in education if it aimed to build a public capacity for cultural participation and reflection. In 1995 *The Norwegian Ministry of Cultural Affairs (KD)* and *The Norwegian Ministry of Education, Research and Church Affairs (KUF)* developed a plan of action called *The Bridge and the Blue Horse (Broen og den blå hesten)*, aiming to make the compulsory schools into local cultural centres. The cultural White Paper had characterised the Norwegian art and design subject, *Forming*,⁵ in the compulsory school as a subject not related to developing special skills or knowledge, in contrast to subjects like music and Norwegian literature.⁶ On the basis of the White Paper, *KD* gave priority to art arrangements for children and juveniles in museums and influenced *KUF* when the new National Curriculum was developed in 1995. The new National Curriculum for the compulsory school was brought into effect in 1997,⁷ at which time the name of the subject was changed from *Forming* to *Art and Crafts (Kunst og håndverk)*. In order to strengthen art and design in education the new subject *Art and Crafts (Kunst og håndverk)* was given national priority during the implementation period from 1996 to 2000.⁸ This is the first time an aesthetic subject has been given national priority in Norway.

There is hardly any developed tradition in Norway for research-based discussion within visual art and art education, and until recently there has been no organised research opportunities focusing on art, design and art

student places at Oslo School of Architecture. Based on information from Oslo School of Architecture.

⁵ *Forming* is italicised throughout the thesis. It covers the art subject in compulsory school from 1960 to 1997. *Art and Crafts (Kunst og håndverk)* is also written in italics; it replaced the earlier subject *Forming* which had a free-expression profile, while the cultural aspects are more strongly profiled in *Art and Crafts (Kunst og håndverk)*.

⁶ Kulturdepartementet. St.meld. nr. 61 (1991–92): *Kultur i tiden*. Oslo: Kulturdepartementet, 1992. p. 176.

⁷ Today, after the new reform (L-97), children start school at the age of six and graduate after ten years. This thesis was researched before the reform was effected, so the school levels here relate to the old system, where the children went to compulsory school for nine years, and started at the age of seven. The nine years were separated into Småskoletrinnet (ages 7–10), Mellomtrinnet (ages 10–13) and Ungdomsskolen (ages 13–16).

⁸ Kirke-, utdannings- og forskningsdepartementet. "F-4016N. Kompetanseutviklingsplan knyttet til innføring av den nye læreplanen for grunnskolen." Oslo: Kirke-, utdannings- og forskningsdepartementet, 1996. p. 14.

education. Consequently, art education has been so far founded upon tradition and custom with little contributing from research, such as *The Norwegian Ministry of Education, Research and Church Affairs (KUF)* requires of all university and college instruction.⁹ Norwegian research related to disciplines such as art history, philosophy, sociology, education and psychology at the universities, as well as research from other countries, has supplied the visual arts and art education field in many ways. Norwegian researchers in psychology and education, such as Helga Eng, Anders Lysne, Åsmund Strømnes, Hans Jakob Andreassen and Erling Lars Dale, have made important contributions to aspects of art education. Gunnar Danbolt from art history in Norway, and Søren Kjørup from philosophy in Denmark, have contributed to the establishment of research in the field of art and design.

In the early part of the 1900s, the psychologist Helga Eng did important research into children's drawings. Eng studied the drawings of her niece Margaret¹⁰ from her early childhood up to the age of twenty-four, and the studies were subsequently published in two books. One of her books, *The Psychology of Children's Drawing: From the First Stroke to the Coloured Drawing*, covers the ages up to nine, and has been translated into English, German, and even Japanese.¹¹ The second book is concerned with Margaret's drawings from the ages of nine to twenty-four, and is called *The Psychology of Child and Youth Drawing: From the Ninth to the Twenty-fourth Year*. Eng takes the psychologist's view in her research, looking at children's drawing as a contrast to the evolving industrial and ugly world. Accounts of industrial misery paved the way to a romantic view of the pure child and the beautiful art as a relief from the industrial culture. Eng's studies give a valuable background for our understanding of the paradigm related to children's drawing in the first part of the 1900s. Søren Kjørup has pointed to how Eng ignored the importance of the

⁹ Kultur- og vitenskapsdepartementet. NOU 1988:28: *Med viten og vilje*. Oslo: Kultur- og vitenskaps-departementet, 1988. p. 90.
Kirke- og vitenskapsdepartementet. NOU 1988:32: *For et lærerikt samfunn*. Oslo: Kirke- og vitenskaps-departementet, 1988. p. 140.

¹⁰ In this thesis I call Helga Eng's niece Margaret since this is the name used in the English version. In the Norwegian version the niece is called Margrethe.

¹¹ This book, *The Psychology of Children's Drawing: From the First Stroke to the Coloured Drawing*, was first published in Norwegian in 1926, then in English in 1931 and 1954, German in 1927 and Japanese in 1954.

influence of the established visual media on Margaret's drawings,¹² an influence that is a well-known phenomenon in art education research today. Helga Eng's research made a theoretical opening for enthusiastic teachers such as Rolf Bull-Hansen, who was the first leader of the present Norwegian Association for Education in Design, Art and Crafts (*Landslaget Formgivning, kunst og håndverk i skolen*) (*LFS*). In 1938 he became the first headmaster of the Teacher Training College for Crafts and Drawing (*Statens sløyd- og tegnelærerskole*) at Notodden. In 1953 he wrote the book *Drawing on a Natural Basis (Tegning på naturlig grunnlag)*.¹³ Just before and immediately after World War II, there was increased activity, putting the new thoughts from the child-centred and expressive movement into effect in Norwegian education. The romantic conception prevailing at that time saw the child as pure nature, which must be shielded from culture. When E. H. Gombrich developed his theory on how image making is influenced by the existing pictures in a culture,¹⁴ the Romantic Movement in art education was seriously challenged. Helga Eng had already observed how Margaret's drawings were influenced by illustrations in books,¹⁵ but she did not pay any particular attention to that issue. She was more interested in looking for the steps Margaret made within her own mind and imagination.

The absence of national research with a focus on visual art and art education turned out to be a political problem when the art teacher training schools were given status as colleges in 1973, with an obligation to carry out research.¹⁶ To prepare for this change, an official committee was appointed in 1980 by The Council for Research in Humanities (*Rådet for Humanistisk Forskning*) (*RHF*) in The Norwegian Research Council for Science and the Humanities (*Norges Allmennvitenskapelige Forskningsråd*) (*NAVF*).¹⁷ The task of the committee was to describe the relationship

¹² Oral statement by Søren Kjølrup at Kristian Pedersen's doctoral disputation, Copenhagen, 2 June 1999.

¹³ Bull-Hansen, Rolf. *Tegning på naturlig grunnlag*. Oslo: Fabritius, 1953.

¹⁴ Gombrich, E. H. *Art and Illusion. A Study in the Psychology of Pictorial Representation*. 5th ed. London: Phaidon, 1992. p. 3.

¹⁵ Eng, Helga. *The Psychology of Child and Youth Drawing: From the Ninth to the Twenty-fourth Year*. London: Routledge & Kegan Paul, 1957. p. 15.

¹⁶ Rådet for humanistisk forskning. *Forming, formingsfag og kunstfag i forskningssystemet*. Oslo: Norges allmennvitenskapelige forskningsråd, NAVF, 1987. p. 1.

¹⁷ The research institutions in Norway were in 1993 gathered into one organisation: *The Research Council of Norway*. (*Norges Forskningsråd*) (NFR).

research in visual art and art education had to other existing research disciplines, and to propose what this research area should be called. There were some contradictions during the early deliberations, and in 1985 a partly new committee, consisting of representatives from art, art history and education, was appointed for further consideration. The final report on research within the visual arts and art education was completed in 1987, and it concluded that research in art and art education could be placed within both the humanities and the social sciences. In those cases when art research was related to art techniques and material also even science was discussed as a possible tradition.¹⁸ Since 1976, an equivalent to a Master's Degree has been offered in *Forming* at two teacher-training colleges. Ten years later, in 1986, two art colleges, one in Oslo and one in Bergen, were offering a similar degree in Art and Crafts. By arranging several conferences on art research¹⁹ and art education research²⁰ during the first part of the 1990s, the authorities paved the way for research activity in this area. Lectures and articles by Søren Kjørup²¹ and Gunnar Danbolt²² have contributed to a growing interest for research within the field of art and design during the 1990s.

Some research has been carried out within art and art education at a doctoral level in Norway. In 1998, Jorunn Spord Borgen, defended her doctoral thesis for the Dr. Art. degree at Bergen University.²³ She was the first practitioner in the art field who defended a doctoral thesis without

¹⁸ Rådet for humanistisk forskning. *Forming, formingsfag og kunstfag i forskningssystemet*. pp. 2–3.

¹⁹ Åsgårdstrand (1992) and Oslo (1995) with the following reports: Norges forskningsråd. *Kunstfaglig forskning*. Oslo: Norges Forskningsråd, 1993. Magnussen, Ragnhild, ed. *Rapport: Forskning og kunstnerisk utviklingsarbeid innen kunstfagene*. Oslo: Kunsthøgskolenes felles FOU-utvalg, 1996.

²⁰ Bergen (1990), Sundvollen (1992), Tromsø (1993) and Trondheim (1995), with the following reports: Lærerutdanningsrådet. *FOU-konferanse: Kunstfag i lærerutdanninga 19–21 nov.1990*. Rommetveit: Lærerutdanningsrådet and Gruppe V-EST, 1991.

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Lærerutdanningsrådets temahefter. Oslo: Lærerutdanningsrådet, 1992.

Lærerutdanningsrådet. *Kunstfag og lærerutdanning – nye perspektiver*.

Lærerutdanningsrådets temahefter. Oslo: Lærerutdanningsrådet, 1993.

Lærerutdanningsrådet. *Kunstfag, forskning og nettverk, Lærerutdanningsrådets temahefter*. Oslo: Lærerutdanningsrådet, 1994.

²¹ Kjørup, Søren. "Forskning i de praktisk-æstetiske fag – nogle overvejelser og idéer." In *Kunstfaglig forskning*, 26–38. Oslo: Norges Forskningsråd, 1993.

²² Danbolt, Gunnar. "Kunstfag mellom taushet og begrep." In *Kunstfag i lærerutdanningen: Et FoU-perspektiv*, 20–36. Oslo: Lærerutdanningsrådet, 1992.

²³ Borgen, Jorunn Spord. "Kunnskapens stabilitet og flyktighet. Om forholdet mellom amatører og profesjonelle i kunstfeltet." Dr. Art., Bergen University, 1998.

first having a traditional university degree. Her research investigated how a jury evaluated handmade garments and artefacts in a design contest where both professionals and amateurs participated. In 1995, the *Oslo School of Architecture (Arkitekthøgskolen i Oslo)* (AHO) opened their doctoral research program to visual art and design, by offering special courses on these issues. In 1996, Thorleif U. Skjønberg defended his doctoral thesis “The Flat Space,”²⁴ for the Dr. Ing. degree. The theme of his thesis, a valuable contribution to the field of design research, was creative drawing for architects. In 1998, Steinar Kjosavik defended a thesis called *From Skills to Forming (Fra ferdighetsfag til forming)* for the Dr. Scient. degree, in which he gave a historical view of how art and crafts had developed in the Norwegian curricula. He focused on the process that led to the merging of three subjects: drawing, textiles and woodwork, into one: *Forming*, in 1960. This amalgamation was radical, and none of the other Nordic countries followed the Norwegian example. The ideological change in drawing education began with a turning away from practical skills to supporting individual and expressive drawing, and appeared at different times in different countries. In Norway, the ideas of free-expression in drawing came into full bloom with the introduction of *Forming* in 1960, and Kjosavik questions the way psychological research was used when new curricula were developed. Research supporting the notion that children’s drawings are a result of the individual child’s development without interference from adults or from the culture was used to justify free-expression in the curriculum.²⁵ Research done by Luquet, which showed the opposite, that adults must guide the children into the common visual culture,²⁶ had almost no influence on the Norwegian curriculum development in the period after World War II. Research can bring forth knowledge that can influence the development of a national curriculum, but curricula remain political documents guiding future development. In connection with the development of new curricula for the compulsory school in 1995, Telemark Research Institute (*Telemarksforskning*) was asked by *The Norwegian Ministry of*

²⁴ Skjønberg, Thorleif Uchermann. “The Flat Space – Potentials and Constraints of the Image in Poetics and Practice of Architecture.” Dr. Ing., Oslo School of Architecture, 1996.

²⁵ Kjosavik, Steinar. “Fra ferdighetsfag til forming. Utviklingen fra tegning, sløyd og håndarbeid til forming sett i et læreplanhistorisk perspektiv.” Dr. Scient., Universitetet i Oslo, 1998. pp. 158–159.

²⁶ Luquet, Georges-Henri. *Le dessin enfantin*. 3d ed. Paris: Delachaux & Niestlé Éditeurs, 1977. p. 192.

Education, Research and Church Affairs (KUF) to investigate the area. The result was a survey showing teachers' and pupils' attitudes to *Forming*,²⁷ and a collection of essays.²⁸ This nationally requested survey of *Forming* contributed some insight into what teachers emphasised in their planning and teaching of *Forming*, and what pupils thought about the subject.

There are two principle discussions within the field of children's drawing: the conception of teaching drawing and the conception of not teaching drawing in school. The romantic conception advanced by the American art educator Viktor Lowenfeld to protect children from culture in order to unfold the child's natural drawing, has been questioned. E.H. Gombrich has in *Art and Illusion* from 1960, developed his theory on how pictures have had more influence in a culture than nature, by proclaiming pictures come from pictures. In 1977, Brent and Marjorie Wilson published a sensational article in which the thoughts of Gombrich were connected to art education,²⁹ explaining how children's drawing was influenced by images in the culture. In 1999 the Danish art educator Kristian Pedersen published his doctoral thesis called *The Picturebook of Bo (Bo's billedbog)*,³⁰ in which he documents how a child's pictures are influenced by mass media. Pedersen thereby verifies Gombrich's theory on the influence of culture on picturemaking, but the question of teaching or not teaching drawing in compulsory school remains unclear. It could be interpreted as if the "pure nature" concept has just been replaced by a "mass media" concept without discussing the role of teaching in art and design in compulsory education. With the "pure nature" concept there was obviously nothing to teach, while the cultural "mass media" concept seems to apply that there is no use for teaching in drawing.

Research in the field of design and visual art is still undeveloped, but in 1998 there was an international conference on *Doctoral Education in*

²⁷ Carlsen, Kari and Åse Streitlien. *Elev- og lærerperspektiv på formingsfaget. Resultater fra en spørreundersøkelse*. Rapport 05/1995. Notodden: Høgskolen i Telemark and Telemarksforskning - Notodden, 1995.

²⁸ Tronshart, Bjørg, ed. *Formingsfagets egenart*. Notodden: Høgskolen i Telemark and Telemarksforskning - Notodden, 1995.

²⁹ Wilson, Brent and Marjorie Wilson. "An Iconoclastic View of the Imagery Sources of the Drawings of Young People." *Art Education* 30, no. 1 (1977): 5–11.

³⁰ Pedersen, Kristian. *Bo's billedbog – en drengs billedmæssige socialisation*. København: Dansk psykologisk Forlag, 1999.

Design 1998 at Ohio State University in the United States, which stimulated further development and international co-operation.³¹ But the art education field has already a tradition of its own in the United States, especially through American projects like Project ZERO at Harvard University and Arts PROPEL and Discipline-Based Art Education (DBAE). The first phase of Project ZERO was founded by Nelson Goodman in 1967 and focused on the philosophy of art. Second phase started in 1970, focusing on psychological investigation in the arts. Arts PROPEL lasted from 1985 to 1991 and included: music, writing and visual arts. Arts PROPEL was supported by the Rockefeller Foundation in collaboration with the Educational Testing Service, and the Pittsburgh Public Schools. The project concentrated on production, perception and reflection. DBAE started as a reaction to self-expression in art education after World War II.³² Ph.D. programs for art education in the United States have also promoted the field, especially programs at Ohio State University and Pennsylvania State University. In the United States, three competing directions inside art education were singled out at the 39th Annual Convention of the National Art Education Association (NAEA) in Washington, D.C., March 1999. The first direction was characterised by child-centred learning,³³ in and through the arts. Another direction was described as focusing on the social perspectives of visual culture in a democracy and implications of this on art education.³⁴ A third direction focused on the four disciplines on which art education was based: art making, art criticism, art history and art aesthetics, also known as DBAE.³⁵ Peter Abbs has described the situation in British art education in his article: "The New Paradigm in British Arts Education." The old

³¹ Buchanan, Richard, Dennis Doordan, Lorraine Justice and Victor Margolin, ed. *Doctoral Education in Design 1998. Proceedings of the Ohio Conference October 8–11, 1998*. Pittsburg: School of Design, Carnegie Mellon University, 1999.

³² Lindström, Lars. "Art Education for Understanding: Goodman, Arts PROPEL, and DBAE." *Journal of Art and Design Education* 13, no. 2 (1994): 189–201. pp. 192–193.

³³ Burton, Judith M. "Defining Art Education: Definition I. Child Centered Learning In and Through the Arts: The Question of Transfer." Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washington, D.C., 24–28 March 1999.

³⁴ Freedman, Kerry. "Defining Art Education. Definition II. Social Perspectives of Art Education. Teaching Visual Culture in a Democracy." Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washington, D.C., 24–28 March 1999.

³⁵ Stankiewicz, Mary Ann. "Defining Art Education. Definition III. Discipline and the Future of Art Education." Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washington, D.C., 24–28 March 1999.

paradigm seemed to set up “self” and “culture” as opposites³⁶ and, according to Abbs, the ongoing debate in the United Kingdom seems to take a much more sympathetic disposition to historic culture and to artistic grammar.³⁷ The international research has to an extent influenced the Norwegian debate on art education as it appears in the Norwegian journal of art education, FORM – Journal of Design, Art and Craft (*FORM – Tidsskrift for formgivning, kunst og håndverk*).³⁸

The justification for art and crafts subjects in the compulsory school is changing in Norway as in the rest of the world, and subjects like information technology, media and drama fight for space in the National Curriculum. But art is not an easy area to promote in school, even for countries with long research traditions in art education. Arguments that aim to justify art subjects in school curriculum can reflect many aspects of the problem. When the American art educator Elliot W. Eisner from Stanford University raised a critical question on how art is justified in school, he touched upon sensitive issue. In his article “Does Experience in the Arts Boost Academic Achievement?” he argues that art educators have far too long been misled to promote the non-artistic outcomes of art education, and consequently have neglected to promote the visual aspects.³⁹ He has analysed research over a period of ten years, and punctured the notion that art education promotes academic achievement, even if it is possible that the attention of a researcher might have boosted learning ability.⁴⁰ Eisner argues that justification for art in school must be sought in art-based, art-related and ancillary outcomes of art education.⁴¹ Art education in the United States has been far more connected to art and art appreciation than in Norway, where the artistic process in children’s

³⁶ Abbs, Peter. “The New Paradigm in British Arts Education.” *Journal of Aesthetic Education* 30, no. 1 (1996): 63–72. p. 69.

³⁷ *Ibid.*, p. 70.

³⁸ FORM – Journal of Design, Art and Craft (*FORM – tidsskrift for formgivning, kunst og håndverk*) is published by the Norwegian Association for Education in Design, Art and Craft (*Landslaget Formgivning, kunst og håndverk i Skolen*) (LFS). The Journal started as *Idea and Form (Idé og Form)* in 1966, but the name was changed to *Forming in School (Forming i skolen)* in 1981. In 1995 it was changed to: *FORM – a Pedagogic Journal (FORM – et fagpedagogisk tidsskrift)* and later, in 1998, to its present name.

³⁹ Eisner, Elliot W. “Does Experience in the Arts Boost Academic Achievement?” *Art Education* 51, no. 1 (1998): 7–15. p. 7.

⁴⁰ *Ibid.*, p. 10.

⁴¹ *Ibid.*, p. 12.

drawing has been the main focus during the *Forming* era. Eisner's discussion opens up for an important debate on the significance of focusing on the intrinsic value of the subject, instead of on how other subjects like mathematics and languages can be promoted by art activities. So when he argues for art-related justification, I understand it to encompass visual literacy, encompassing making, visual judgement, and the capacity to make visually based choices for everyday life. Eisner goes deeper into the discussion on the role of art in education in his essay "The Arts and their Role in Education"⁴² in his book from 1998.

As a consequence of the priorities in the cultural White Paper, *Culture in Our Time (Kultur i tiden)*, the organisation *Norwegian Form* was established in 1993 to promote public awareness and debate about our built environment and design for everyday life, and led from its beginning by architect Peter Butenschøn.⁴³ And during the past six years, conferences, articles and newspaper debate on design and our built environment have increased. In the public debate on architecture, the focus has been on stylistic expression, old versus modern, and it has engaged both professionals and laymen. The newspaper debate has from time to time uncovered collisions between aesthetically educated architects and non-professionals like politicians, users of public space and clients, as for example in the debate about the architect competition for Tullinløkka, an attractive site in the centre of Oslo, which reached its climax in 1997.⁴⁴ After two architectural competitions, won by the

⁴² Eisner, Elliot W. *The Kind of Schools We Need. Personal Essays*: Portsmouth, N.H.: Heinemann, 1998. pp. 55-100.

⁴³ Kulturdepartementet. St.meld. nr. 61 (1991–92): *Kultur i tiden*. Oslo: Kulturdepartementet, 1992. p. 140.

⁴⁴ Selection of articles from the newspaper debate summer 1997:
 Norberg-Schulz, Christian. "Klassiske krampetrekninger." *Dagbladet*, 13 April 1997.
 Arneberg, Arnstein. "Spøker det for modernistene?" *Dagbladet*, 27 April 1997.
 Carlsen, Jan. "Arkitektens såpeopera." *Dagbladet*, 4 May 1997.
 Benedictow, Ole Jørgen. "Arkitektelitens ukultur." *Dagbladet*, 22 June 1997.
 Benedictow, Ole Jørgen. "Overkjørt av arkitekteliten." *Dagbladet*, 6 July 1997.
 Brockmann, Jan. "Kulturdebatt uten nyanser." *Dagbladet*, 11 July 1997.
 Carlsen, Jan. "Gi oss et byplankontor!" *Dagbladet*, 15 July 1997.
 Arneberg, Arnstein. "Inkvisisjonen ruller videre." *Dagbladet*, 20 July 1997.
 Benedictow, Ole Jørgen. "Med hjerter av armert betong." *Dagbladet*, 21 July 1997.
 Brockmann, Jan. "En strid mot vindmøller." *Dagbladet*, 29 July 1997.
 Lund, Kjell. "Arkitektens billedspråk." *Dagbladet*, 3 August 1997.
 Carlsen, Jan. "Nyfunksjonalismen." *Dagbladet*, 20 August 1997.
 Norberg-Schulz, Christian. "Arkitektens nye rolle." *Dagbladet*, 7 September 1997.
 Butenschøn, Peter. "Tullinløkka – to debatter." *Aftenposten (Aften)*, 19 November 1997.

architectural firms *Lund og Slaatto* in 1972 and *Telje-Torp-Aasen* in 1996, Tullinløkka is still a parking lot, as it was before, on one of the most attractive sites in the centre of Oslo.⁴⁵ This case has many aspects, and reveals an absence of cultural leadership from politicians for developing of the inner city.

But how the compulsory school education could contribute to build capacity for public participation when our built environment is being planned and developed has been only a marginal topic in the newspaper debate. Only one journalist, Harriet Eide in *Dagbladet*, keeps returning to the importance of public education when she writes about the development of our built environment.⁴⁶ The compulsory school is an arena for the generating of cultural attitudes and knowledge for both future politicians and users of architecture. There are, however, some bright spots where organisations and institutions are involved in ongoing projects concerning design and architecture in education. These are: *Directorate for Cultural Heritage (Riksantikvaren)*, *Norwegian Form (Norsk Form)*, *National Association of Norwegian Architects (Norske arkitekters Landsforbund) (NAL)*, *Form and Architecture (Form og arkitektur)*, and *Department for Continuing Education and Training at Faculty of Fine Arts and Drama (Etter- og videreutdanning ved Avdeling for Estetiske fag) (EVU) at Oslo College (Høgskolen i Oslo)*.

The importance of educating lay politicians, clients and users has been actualised by Plan and Building Regulations (*Plan- og bygningsloven*), since aesthetic judgement is emphasised,⁴⁷ and The Working Environment Act (*Arbeidsmiljølovens* § 19), which demands user-participation when official buildings are being developed.⁴⁸ As a consequence of the

⁴⁵ Statsbygg. "Tullinløkka – de mange planers parkeringsplass" Prosjektnytt. Særtrykk fra Bygg & Rom 3/1997/2000.

⁴⁶ Eide, Harriet. "Gud bevare oss for arkitektene." *Dagbladet*, 8 January 1998.

⁴⁷ Stortinget. *Plan og bygningsloven av 14 juni 1985 nr. 77*. Oslo: Cappelen Akademiske forlag, 1997. pp. 1, 11, 39.

Kommunal- og arbeidsdepartementet, Miljøverndepartementet. "Rundskriv H-7/97 om endringer av estetikkbestemmelser i plan- og bygningsloven." Oslo: Kommunal- og arbeidsdepartementet, Miljøverndepartementet, 1997.

⁴⁸ Kommunal, - og regionaldepartementet. §19: *Forskrift om arbeidstilsynets samtykke ved oppføring av bygning, bygningsmessige endringer, omorganisering m.v.* Oslo: Arbeidstilsynet, 1986

Kommunal, - og regionaldepartementet. *Lov om arbeidervern og arbeidsmiljø m.v.* Oslo:

increased institutional attention to our built environment, various guidelines and publications with a layman address have been developed, e.g., *My House is Your View (Mitt hus er din utsikt)*,⁴⁹ *Aesthetics in Plan and Building Affairs – Guidelines (Estetikk i plan og byggesaker – Veileder)*⁵⁰ and *Fredrikstad Kommune – Building Guidelines (Fredrikstad kommune – Byggeskikkveileder)*.⁵¹ Even guidelines for children’s participation in connection with *Plan and Building Regulations (Plan- og bygningsloven)* has been developed.⁵² I regard these efforts as an invitation to laymen and professionals to co-operate. This presupposes knowledge and respect from both professionals and laymen in order to become more than just airy intentions. Today we have insufficient knowledge about resources for art and design in compulsory school, if they are being used to prepare for such participation, and consequently we lack a base for a qualified discussion for change and justification. I will try to fill some of this lacuna.

Formulation of problem

As mentioned, the cultural White Paper, *Culture in Our Time (Kultur i tiden)*, from 1992 has focused on the need to strengthen *Forming* in the compulsory school and to develop public awareness of architecture and design in everyday life. It has actualised a discussion on how art education in compulsory school can contribute to developing such awareness and promote public participation when our built environment is planned and discussed. In order to contribute to such a discussion, I regard it as necessary to describe what is happening in compulsory art education today, and to describe the problems a layman will meet when trying to

Kommunal-, og regionaldepartementet, 1977

Rasch, Reidar. “Nybygg og brukervedvirkning.” *Aftenposten*, 9 August 1999.

⁴⁹ Schmidt, Lene og Hanne Wilhjelm. *Mitt hus er din utsikt. God byggeskikk for hus og land – hva, hvorfor og hvordan*. Oslo: Statens byggeskikkutvalg, 1998.

⁵⁰ Kommunal- og Arbeidsdepartementet og Miljøverndepartementet. “T-1179 Estetikk i plan og byggesaker - veileder.” Oslo: Kommunal- og arbeidsdepartementet og Miljøverndepartementet, 1997.

⁵¹ Fredrikstad kommune. *Byggeskikkveileder*. Fredrikstad: Plan og miljøseksjonen, 1997.

⁵² Barne- og familiedepartementet, Kulturdepartementet, Miljøverndepartementet, Samferdselsdepartementet, Kirke-, utdannings- og forskningsdepartementet, Sosial- og helsedepartementet and Kommunenes Sentralforbund. *Barnerepresentantens faktaperm*. Oslo: Direktoratet for naturforvaltning (DN), 1998.

become an active participant in the development of our built environment. I have chosen to make a description of the juvenile's outcome from drawing education in the compulsory school, and I have limited the description to drawing and pictorial representation of space, since this is central in architectural development. On this basis, I have developed the following research problem:

*Does the Norwegian middle school promote drawing skills and an understanding of pictorial representation of space?
Why are such skills and knowledge relevant in compulsory education?*

The objective of this thesis is to contribute new knowledge in order to have an academic discussion on the justification for teaching drawing in compulsory school. With this discussion I hope to influence the development of future curricula, justifying visualisation skills as a basic part of education for the future, since more and more decisions are being made on the basis of representations. A discussion with a focus on drawing and spatial representations in the compulsory school does not exclude other aspects of art in education, but those aspects are not the scope of this thesis.

Part 1: Preliminaries

The practical field of art and design has no tradition as a research discipline in Norway, and as a consequence there is no specific research tradition to build upon. I will have to build on research within other disciplines and on art-related research from other countries. In the United Kingdom and the United States, research in art education is documented through research journals, and this has influenced the Scandinavian debate. By studying and describing a limited and specific part of art education, knowledge can be gained, lifted to an academic level and used as a basis for a changing practice in different contexts. My research is based on intentional objects, like drawings, and the outcome of intentional actions, like education and design, which form the basis for a discussion on drawing skills and spatial imagination in art education. After having limited my research area, I have designed an approach to the defined problem. The visualisation of the research strategy, which can be seen in Figure 1, can serve as a guide for this chapter.

Research Strategy

My point of departure for this thesis has its basis in my experiences as a practitioner in the art and design education field and the problems I have met and reflected upon. There is an obvious requirement for research in order to understand and develop the practical education field. My interest in art education is connected to capacity building for democratic participation in society, and consequently I have a special interest in compulsory education, which reaches almost everyone in the country. In

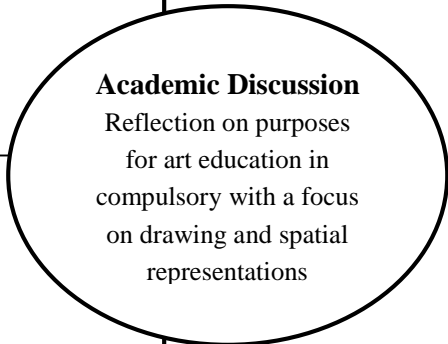
Research Strategy:

Point of Departure:

- Observed and experienced a decline in children’s interest for drawing with increasing age, despite a good framework for the subject in compulsory school
- Requirement for research in own teaching of art didactics since it is supposed to be based on research
- Theoretical studies on art education
- Interest for architecture and design in society

Studies, Theory and Discussions:

- The Study of "Draw 92/97":**
- 1) A study of juveniles drawings and comments on school experience, with a focus on spatial representations
 - 2) Theory and political documents
-
- The Case Study of " Villa 3CM"**
- 1) A study on what problems laymen meet when having to make descitions on the base of spatial representations
 - 2) Theory and political documents



Continuance:

- further discussions on justification for art in school
- how this research can influence educational practice
- how this research can be continued

Figure 1 Research strategy. Grey parts indicates the continuance of this research.

searching for an area in society to study where democratic participation presupposes visual knowledge, I ended up in the architectural field. In this area, laymen as politicians, users and clients, have to make important decisions about our built environment on the basis of pictorial representations. As I am not an architect, but an art teacher, I am a layman in the architectural field. For more than twenty-five years I have been a part of the art education field, including five years in Stockholm, where I got my specialisation in art education. I have been an active participant on many levels in the political discussions on art education in Norway, which has given me inside information. I estimate this as an advantage when attempting to describe and apply a critical approach to a part of the art education field. I have for a long time been interested in the juveniles' attainment from drawing education at school and in their teacher's attitude to drawing instruction. I have also been trained as a classroom teacher.

Another point of departure has its background in my more ten years as a professional teacher trainer of students who are already educated artists, designers or architects. I have taught art didactics, which includes the study of "Why" we teach art and design, "What" we teach and "How" we teach art and design. And it is quite clear that the available literature in the field is insufficient. I have a special interest in the question "Why", because this generates the other two questions. The question "Why" is also connected to why art and design is a compulsory part of the national curriculum and, consequently, connected to the justification for its position there. There is a need for an academic discussion on these issues, since visually based aspects of society are increasing and important decisions about our future are made on the basis of representations. It is also important that the struggle for a position in the National Curriculum is going to become ever more arduous, which calls for very convincing justification arguments.

My practice in art education has also a theoretical foundation in an interest for curricula, political documents, theory and strategy building for the future. I have sought for theoretical explanation for the attitudes to art education that I met, not only in Norway, but also through co-operation with Nordic colleagues. I have met these Nordic colleges through the annual *Nordic Courses (NK)*, which I first joined in 1974, and later through the *Network of Nordic Researchers in Visual Arts Education*,

which was initiated in 1994. My theoretical studies have inspired me to carry out practical studies and relate practice to theory.

I find my scientific standpoint close to what Søren Kjørup describes in his book: *The Humanities (Menneskevitenskapene)*, where he discusses the humanities in relation to the philosophy of positivism and postmodernism. He criticises the impossible project of positivistic generalisations within the humanities, but he also describes the postmodernist project as impossible.⁵³ As the project for a researcher is to search for “truth”, Kjørup argues that a logical consequence of the failure of both positivism and postmodernism is to regard each project in its context and search for pragmatic explanations. At the end of a lecture on “Core Problems in Contemporary Reflections on the Aesthetics” at Lysebu in Oslo in 1998,⁵⁴ Kjørup asked, “What time it is?” By asking this question he illuminated the logic in his reasoning about “truth”. If the reply was that it was five o’clock in the positivistic generalist tradition, it was invalid – because it was not five o’clock in the whole world. If the reply were connected to a postmodern attitude, it would be hard to say what time it was, since it was five o’clock in Norway and something else in the rest of the world. But as Kjørup continued, it is “true” that the time is five o’clock, here and now, in this situation. Kjørup gives a pragmatic answer connected to a certain situation and context. Kjørup calls himself a rhetorical-pragmatic situationist (*retorisk–pragmatisk situasjonist*). Rhetorical because he underlines the importance of communication and acknowledgement, pragmatic because of his inspiration from pragmatics like John Dewey and Nelson Goodman. His theoretical point of departure, situationism, is inspired by the American biologist and philosopher of science, Donna Haraway and her *situated knowledge*.⁵⁵ For my own research I have formulated my project on the basis of my inside knowledge of the art education field, and have tried to uncover and communicate some conflicts and connections in the field. In my methodological approach I have made pragmatic choices; counted what was possible to

⁵³ Kjørup, Søren. *Menneskevidenskaperne – Problemer og tradisjoner i humanioras videnskabsteorier*. Roskilde: Roskilde Universitets Forlag, 1996. p. 377.

⁵⁴ Information given by Søren Kjørup in his lecture “Core Problems in Contemporary Reflections on the Aesthetics.” At the conference: *From Philosophy of Aesthetics into Arts Education*. Oslo: Lysebu 24 March 1998

⁵⁵ Kjørup, Søren. *Menneskevidenskaperne*. p. 25.

count, and searched to describe phenomena relevant for the discussion. Gombrich has also given voice to a rather pragmatic attitude on method when he answered that his only method was common sense.⁵⁶

Approach in “Draw 92/97”

In the study of “Draw 92/97” I have aimed to make a limited description of children’s and juveniles’ drawings and comments as a basis for a discussion on how their drawings develop during middle school (ages 10–13). The study is based upon children’s and juveniles’ drawings made in a home situation. I have deliberately focused on activity outside school, instead of doing classroom research, curricula studies or interviewing teachers. I have used John Goodlad’s division of the curricula into five domains: 1) Ideological Curricula, 2) Formal Curricula, 3) Perceived Curricula, 4) Operational Curricula, and 5) Experiential Curricula.⁵⁷ Out of Goodlad’s five domains, I have concentrated on the experiential curricula by studying the juvenile’s attainments as it is shown through their drawings and their own comments. From this standpoint, I have tried to discuss another of Goodlad’s domains, the operational curricula, to illuminate how teachers of *Forming* practise drawing instruction. The school situation is in itself interesting, but in a perspective of justification, the outcome and unarticulated attitudes to education seem more appropriate for me. The focus is chosen in relation to the subsequent discussion about the juveniles’ preparation for democratic participation in society in their adult life, when decisions have to be made on the basis of pictorial representations.

My material is gathered from a drawing contest in 1992, and includes children’s drawings from different age groups. The children who were eight when they entered the contest were chosen to participate in the follow-up study five years later, when they had reached the age of thirteen. This group was chosen because it included both the eight-year period of considerable interest in drawing, and the critical period of

⁵⁶ Gombrich, E. H. *Looking for Answers*. New York: Harry N. Abrams, Incorporated, 1993. p. 139.

⁵⁷ Goodlad, John I., M. Frances Klein and Kenneth A. Tye. “The Domains of Curriculum and Their Study.” In *Curriculum Inquiry: The Study of Curriculum Practice*, edited by Thomas H. Quinn and Michael Hennelly, 43–76. New York: McGraw-Hill Book Company, 1979. pp. 60–64.

twelve, when many juveniles stop their drawing activity. Change of interest might have many explanations: reaching puberty is one. I will *not* go into psychological or sociological discussions for the simple reason that this is not my field of competence. This does not exclude areas within psychology and sociology as possible explanations for the decline in the juvenile's drawing activity. Nevertheless, my focus is to search for some possible explanations within the conception of art education in the compulsory school.

Drawing is a broad topic, and I have limited my study to pictorial representation of space. This limitation was made partly because pictorial representation of space is a crucial topic in children's drawing, particularly during the period studied. I believe that practising pictorial representation of space in drawing develops central skills, such as powers of imagination and the transfer of scale and proportions. The transfer from a two-dimensional representation to imagining a three-dimensional object, for instance a house, is crucial for the architect. I presuppose that drawing activity is important for developing this power of imagination, which is important for understanding the consequences of architectural drawings. Practising drawing has been used in developing the architects' imagination of space in architectural education for ages, and the importance of learning by doing is emphasised by John Dewey and Donald Schön. Public participation is a foundation stone in a democratic society like the Norwegian. Compulsory education, which reaches everyone, has an important role to play in promoting the power of democratic participation. It is obvious that learning to read and write is central to democratic participation in society. There is no such common understanding for giving visual literacy the same position as that of reading and writing, even though visual information and symbols are making greater demands in our social life – we have to make visual choices every day. Politicians, who have had no further visual education since they were fifteen in the compulsory school, make important decisions about our built environment on the basis of pictorial representations.

“Draw 92/97” encompasses drawings made by children and juveniles from all over Norway in 1992 and a follow-up study from 1997 containing a questionnaire that was answered by selected juveniles at the age of thirteen. Each participant in the follow-up study is represented by

four drawings: one made at the age of eight, and three at the age of thirteen. The ages do not strictly follow the same grades in school; consequently, some eight-year-olds were in first grade and some in second; some thirteen-year-olds were in sixth grade and some in seventh. The first selection of informants (aged eight in 1992) was based on participation in a drawing contest on television for children and juveniles up to the age of fourteen. The study is therefore limited to those who have shown an interest in drawing, and cannot be seen as a representative selection of all eight-year-olds in 1992. This is interesting for the follow-up study in 1997, and might show how an interest in drawing is cultivated and developed in school during a period of five years. Drawings without a return address were excluded from the follow-up study.

The follow-up study includes approximately 1600 drawings, done both at the age of eight and at the age of thirteen; some children are represented with more than four drawings and some with less. These drawings and the questionnaire represent a complex material, with many possibilities for interesting studies. In my point of departure the limitations for the analyses were set to be pictorial representations of space, but to make an interesting study it had to be limited further. The idea of analysing all the drawings in the follow-up study was left at an early stage, as was also the idea of analysing the drawings from one postal district. After having studied the drawings and the juveniles comments again and again, looking for patterns and interesting phenomena, I decided to study the drawings on the basis of the answers and comments given to the question concerning drawing at school. All the drawings were then categorised in relation to what the juveniles had responded to one of the following alternatives from the questionnaire:

- 1) I have learned a lot about drawing at school
- 2) I have learned something about drawing at school
- 3) I have not learned anything about drawing at school

The juveniles were also asked to give comments, and these comments uncover great differences when estimating what learned *something* implies. Some estimated *something* as almost nothing, and some estimated *something* as a lot, and it became quite clear that more than these three alternatives should have been offered. But since comments and drawings follow the questionnaire, there are no crucial consequences for the study. I decided to focus on the drawings from those juveniles who

said they had learned a lot about drawing at school and those who said that they had learned nothing. This decision came after having studied official statistics on the grade assessments in *Forming*, which increased my interest in the *Forming* teacher's attitude to teaching and grading. By comparing what these juveniles said about learning in school with their drawing development over the five years, an interesting part of the field could be uncovered. With these limitations my material was cut down to a manageable size, and there was a chance to illuminate a phenomenon in the field of art education in Norway.

Drawings are intentional objects, which must be interpreted in order to give meaning. My qualifications for analysing the drawings are my education in art, my involvement in the field of art education and more than fifteen years of practice as a teacher of studio drawing and art didactics. It makes me a qualified, although not quite objective, interpreter. I have searched for two main conceptions of spatial representations when analysing the drawings with a focus on pictorial representation of space:

- the concept of representing the world as it is known by projections, with plan and frontal/profile elevations
- the concept of representing the world as it appears, with overlapping, diminution and linear perspective

These concepts have been discussed and clarified by, among others, Douglas Cooper in his book *Drawing and Perceiving*.

For the juveniles who have chosen to use the first concept, I have concentrated on the use of plan and frontal/profile elevation when describing their drawings. For those who have chosen the second, I have focused on the absence or presence of overlapping, and the absence or presence of diminution. I have endeavoured to describe how children and juveniles mix these categories, and have tried to uncover their struggles. I have used QSR NUD.IST⁵⁸ as an analysing tool for both the questionnaires and the drawings.

⁵⁸ QSR NUD.IST is a computer package designed to aid users in handling **N**on-numerical and **U**nstructured **D**ata in qualitative analysis, by supporting processes of coding data in an **I**ndex System, **S**earching text or patterns of coding, and **T**heorizing about the data.

The quantified data showing participation in the drawing contest in 1992 and in the follow-up study from 1997 form a base for a part of the study. Qualitative methods are used when choosing and analysing the drawings in “Draw 92/97”. I have used my inside knowledge in the art education field to accommodate the criteria for theoretical sensitivity, as described by Strauss and Corbin. Theoretical sensitivity predicts insight in the field to give meaning to the data, to have a capacity to understand, and to have the capability to separate the pertinent from what is not.⁵⁹ I have used this knowledge carefully when limiting the study, since the data in “Draw 92/97” is huge and comprehensive.

The uncovered phenomena from “Draw 92/97” are discussed in relation to theory and official documents in the second part of Part 2, and a combination of national and international theory has been used. Theories from both the United States and the United Kingdom have had an influence in Norway. I have chosen to use theory by Viktor Lowenfeld and E. H. Gombrich as a basis for the discussion. Lowenfeld, who was a professor of art education, was chosen because of his great influence on drawing as a part of *Forming* in Norwegian art education. Lowenfeld’s theory focuses on children’s natural drawing capacity, and his strategy is to protect this natural development from cultural influence. Lowenfeld developed the ideas of Franz Cizek, the Austrian father of “child art”. The art historian Gombrich takes the opposite stand. His viewpoint is that pictures come from pictures, consequently the pictures in a culture will influence the children and juveniles in that culture. Gombrich’s statement represented a view antagonistic to that of Lowenfeld’s, and in *The American Art Education History* Peter Smith states:

...after Gombrich we cannot go back to Cizek’s rhetoric.⁶⁰

Lowenfeld and Gombrich do not fight in the same arena: Lowenfeld was an art educator and Gombrich is an art historian, but they both have influenced Norwegian art education at most teacher-training colleges during the latter part of the twentieth century. Their points of departure

⁵⁹ Strauss, Anselm and Juliet Corbin. *Basics of Qualitative Research. Grounded Theory Procedures and Techniques*. London: SAGE Publications, 1990. p. 42.

⁶⁰ Smith, Peter. *The History of American Art Education. Learning About Art in American Schools, Contributions to the Study of Education*. London: Greenwood Press, 1996. p. 77.

are different, since the writings of Lowenfeld have a focus on art education with direct examples for classroom activities, while Gombrich takes the view of the art historian with an interest in philosophy, psychology and perception. Behind their concrete works on art education and art history, there are two conflicting paradigms based on differing philosophies on art education.

Both Lowenfeld and Gombrich emigrated from Austria: Lowenfeld to the United States in 1938, and Gombrich to Great Britain in 1936 because of the growing threat from fascism. They studied in Vienna at approximately the same time, and they were both influenced by developmental psychology of Karl Bühler. Gombrich (1909–) was born and educated in Vienna, where he received a strong grounding in the classical, Christian, enlightenment, and romantic traditions of European culture. He was experiencing the impact of modern Viennese thought and artistic practice on these old traditions through the emergence of Expressionism in art. Leslie Cunliffe emphasises the possible account that this cultural meeting of the old and the modern mind can explain Gombrich's wide research interest ever since.⁶¹ In *Ideals and Idols*⁶² Gombrich explains how a negative childhood experience in Vienna, influenced by the “child art” movement of Cizek, has influenced his writing of *Art and Illusion*. In *Art and Illusion* from 1960 and later in *The Image & the Eye* from 1982, he discusses his own theory on how pictures come from pictures despite the fact that pictorial styles have changed throughout history. Lowenfeld (1903–1960) enrolled in the Vienna Kunstgewerbeschule in 1921 and was a student of Franz Cizek. He later studied at Vienna Academy of Fine Art and Vienna University. Between 1926 and 1938 he worked with blind children and developed his ideas about the therapeutic uses of creative activity in the arts.⁶³ His interest in expressionistic and haptic form concerned with feeling, expression and subjective processes, as a contrast to impressionistic form concerned with appearances comes from this period.⁶⁴ In 1946

⁶¹ Cunliff, Leslie. “Gombrich on Art: A Social-Constructivist Interpretation of His Work and Its Relevance to Education.” *Journal of Art and Design Education* 32, no. 4 (1998): 61–77. p. 61.

⁶² Gombrich, E. H. *Ideals and Idols: Essays on Values in History and in Art*. Oxford: Phaidon, 1979. p. 175.

⁶³ Efland, Arthur D. *A History of Art Education: Intellectual and Social Currents in Teaching the Visual Arts*. London: Teacher College Press, Columbia University, 1990. p. 234.

⁶⁴ Smith, Peter. *The History of American Art Education*. p. 171.

he was invited to join the faculty of Pennsylvania State University, where he established the art education department. His book *Creative and Mental Growth*, which was first published in 1947, came to be the most influential art education textbook of the post-war era.⁶⁵ Subsequently his books were translated into many languages, and even if he is looked upon as old fashioned in the United States today, his ideas are still very influential in parts of the world.

Approach in “Villa 3CM”

The purpose of the case study “Villa 3CM” has been to uncover some of the problems a layman will meet when having to make important decisions on the basis of pictorial representations. I decided to follow a case where both professionals and laymen would be included in a design process, and I had to make a choice. Out of various alternatives – interior designer, architect, scenographer, film director, stylist, window decorator, graphic or industrial designer – I chose the architect, because of the possible transfer to a large group of users. Architecture is an area of public concern and, consequently, relates directly to our system of education. I have chosen to study two lay clients in dialogue with an architect in the development their new dwelling, here called “Villa 3CM”. How the clients manage through the process will reflect what is difficult, what is misunderstood, what is easy to talk about and what is not.

The lay clients in “Villa 3CM” are in an exclusive situation, having an architect all to themselves. But they will probably meet some of the same problems as other laymen, as neither of them have had any further education in the visual field than what was offered in the compulsory school. The problems involved in understanding the consequences of drawings are also a concern for our elected politicians who make decisions on town planning on the basis of drawings and, occasionally, models. Nevertheless, both drawings and models need to be transferred in scale, and that calls for powers of imagination. I have limited the study to just one case in a search to understand the problems that laymen will meet.⁶⁶ During observations and interviews, the focus is on how the lay

⁶⁵ Efland, Arthur D. *A History of Art Education*. p. 235.

⁶⁶ Yin, Robert. *Case Study Research Design and Methods*. Edited by Leonard Bickman. Vol. 5, *Applied Social Research Methods Series*. London: Sage Publications, 1989.

clients, not the architect, manage through the process and how they communicate about their future dwelling through drawings and other visual representations. The study will also cover a description of the clients' background in the compulsory school, and their reflections as they sit in their new home, comparing what they thought they had ordered with what they finally got.

When I decided to do a case study, I contacted several architects. I had to wait for an opportunity, and finally in August 1997 I was able to initiate the case study of "Villa 3CM". The architect in this study is a member of the *National Association of Norwegian Architects (Norske arkitekters Landsforbund)* (MNAL) who runs a small firm together with his associate. He contacted me after being hired to draw a dwelling for a young couple in a central part of eastern Norway. The clients decided to give the job to this particular architect after first having contacted several others, and they did not know that the architect was to be involved in my research project. The process started in the autumn of 1997, and the dwelling was completed in the spring of 1999. The observations were made by me, writing down what was said and done. It would perhaps have been better to record the whole situation on video, but I decided not to, because I was afraid that a video camera could have a negative influence on the behaviour of the architect and the clients. I was present at all meetings with the exception of the very first, and one concerning finances, and was accepted as a natural part of the group, sitting with them at the table. The sketches from the meetings were copied and my notes were immediately typed. Shortly after the drawings were completed and sent out for approbation, the clients and the architect were interviewed separately. The interviews were half structured with an interview guide, and based on Steinar Kvale's book on interviewing in qualitative research.⁶⁷ The interviews were taped and typewritten. Both the observations and the interviews were analysed in QSR NUD.IST. All the drawings from the meetings and the ones made by the architect between the meetings were copied and sorted by date. Models were also used. The raw text from the observations and interviews is available. All participants have been given anonymity.

⁶⁷ Kvale, Steinar. *Interviews: an introduction to qualitative research interviewing*. Thousand Oaks, Calif.: Sage Publications, 1996.

The experiences gained through “Villa 3CM” are discussed in relation to official documents and relevant theory in order to uncover some of the problems met by a lay client undergoing such a process. When searching for relevant literature, I found that little interest was paid to the problems and situation of the lay client, compared to the interest given to the architects. I did, however, find interesting studies about the relationship between architects and clients by the American researchers Dana Cuff⁶⁸ and Judith Blau.⁶⁹ When searching through Norwegian literature, I found an interesting study by Hild Sørby that focused on the client, but in her study consultants from the “catalogue-house” companies replaced the architect.⁷⁰ In the study of “Villa 3CM” the clients and the architect reflect on design connected to the developing of this particular dwelling. Donald Schön calls this “reflection-in-action”, in his description of the professional–client relationship in society.⁷¹ There are parallels between Dewey and Schön, as they have both been interested in education through practice – Dewey with the slogan “learning by doing” and Schön with “reflection-in-action”. This makes Schön’s theory interesting also for art education. The layman has been in focus throughout the whole study of “Villa 3CM”. My ambition has not been to go into the entire architectural field, since that is not my profession.

Discussion

The study of “Villa 3CM” does indeed concern a small and privileged group in society. Not more than fifteen percent of the population engage an architect to design their new dwelling. “Villa 3CM” is just one case, but the problems involved in the process where decisions have to be made on the basis of representations might well be transferred to lay participation in official building processes. The Working Environment Act (*Arbeidsmiljølovens §19*) calls for user participation when developing new buildings or making substantial changes. This puts lay qualifications

⁶⁸ Cuff, Dana. *Architecture: The Story of Practice*. Cambridge, Mass.: The MIT Press, 1991.

⁶⁹ Blau, Judith R. *Architects and Firms. A Sociological Perspective on Architectural Practice*. London: The MIT Press, 1984.

⁷⁰ Sørby, Hild. *Klar – ferdig – hus. Norske ferdighus gjennom tidene, Kult-bøker*. Oslo: Ad Notam Gyldendal, 1992.

⁷¹ Schön, Donald A. *The Reflective Practitioner – How Professionals Think in Action*. London: Arena, 1995. pp. 290–307

for democratic participation in direct relevance to the role of visualisation in the compulsory school in “Draw 92/97”.

Drawing has been focused in “Draw 92/97” because drawing is the closest existing practice in compulsory school where spatial imagination and the transferring between dimensions and scaling is developed. By practising imitative drawing, the capacity for transfer of a three-dimensional impression to a two-dimensional representation is developed, and this drawing skill is a condition for the reverse activity, when visualising an idea. It is possible to understand architectural symbols without being a skilful draughtsman, although without being able to imagine what a drawing represents the “understanding” is rather limited. Drawing is used in the education of architects in order to establish a capacity for spatial imagination and the visualisation of ideas. The democratic influence of the layman on a building process would necessarily be somewhat truncated if nobody but the architect is able to understand and give visual form, and thereby voice, to ideas or changes. With this in mind, I build upon the notion that drawing develops a capability for spatial imagination and the capacity to visualise personal ideas. These are important skills when having to make decisions about our built environment on the basis of spatial representations. The importance of drawing in the education of architects and designers is emphasised by e.g. Douglas Cooper.⁷²

On the basis of the two studies I will discuss how laymen are prepared through the compulsory school for visual involvement. These two studies, together with theory, official documents and my practical experience in the field, will form the basis for an academic discussion on capacity building for public participation when our built environment is developed. This perspective opens for a discussion on who should be qualified to develop this capacity, the architects or the compulsory educational system. The framework for each subject in school changes regularly with new national curricula that are connected to a political debate influenced by how well the justification for each subject is formulated and based in

⁷² Cooper, Douglas. *Drawing and Perceiving*. 2d ed. New York: Van Nostrand Reinhold, 1992. p. V.

other political documents. Culture in Our Time (*Kultur i tiden*), The Working Environment Act (*Arbeidsmiljøloven*) and, Plan and Building Regulations (*Plan- og bygningsloven*), are such documents.

There might not be any clear conclusion to this research since the aim is to generate discussion on the purpose of art education in the compulsory school. But my intention is that my research can have some influence in the field of art education, and on the development of qualified lay participation in communication on environmental issues. Education is an area in which changes take time to be implemented, so there is also a necessity for other organisations and institutions to bring possible changes into being.

Terms and Concepts Used in this Thesis

Compulsory school

When the term “compulsory school” is used to describe mandatory education in Norway, it embraces school children from ages seven to sixteen in what is known as *Grunnskolen* in Norway.⁷³ The divisions of the Norwegian compulsory school are not quite parallel to either the American or the British. I have chosen to use the term “primary school” for the Norwegian grades 1–3 (*småskoletrinnet* – ages 7–9), “middle school” for grades 4–6 (*mellomtrinnet* – ages 10–13), and “lower secondary school” for grades 7–9 (*ungdomsskolen* – ages 13–16).

Art Education – Visual Art Education – Forming – Art and Crafts (Kunst og håndverk)

Art education or visual art education is the common English term used to describe education in drawing and design. I use the art education/visual art education when reference is made to international discussions or when general issues within drawing and design are being discussed. What is included in art education/visual art education may change from time to time. In the British National Curriculum Order of 1994 it is stated that art should be interpreted as “art, craft and design” throughout.⁷⁴

⁷³ The National Curriculum from 1997 lowered the age for starting compulsory school from seven to six. This resulted in a rearrangement of the grade denominations. For example, grade six before 1997 now became grade seven.

⁷⁴ SCAA. *National Curriculum Orders for England (not the final order)*. London: SCAA,

In all the Scandinavian countries except Norway, woodwork and textiles are taught separately from art. This was also the structure of the subject in Norway up to 1960, when an experimental plan introduced the subject *Forming* as an amalgamation of drawing, textiles and woodwork. When discussing this subject in the compulsory school from 1960–1997,⁷⁵ I have chosen to use *Forming* (in italic). With the new National Curriculum in 1997 the name of the subject was changed from *Forming* to *Art and Crafts (Kunst og håndverk)*, still being a combination of drawing, textiles and woodwork. The name of the new subject *Art and Crafts (Kunst og håndverk)* will also be italicised, so as to differentiate it from the Arts & Crafts movement connected with William Morris at the latter part of the 1800s.

National Curriculum

The National Curriculum for the period discussed forms a base for the discussion on *Forming* in compulsory school. In this thesis I have accepted the National Curriculum as the given framework and described some phenomena within the subject *Forming* without going into a critical discussion on general curriculum theory. I have not discussed the benefits and disadvantages of having a national curriculum such as the one in Norway, even if that would have been very interesting. I use the following terms from John I. Goodlad to describe various functional levels of curricula: 1) Ideological Curricula, 2) Formal Curricula, 3) Perceived Curricula, 4) Operational Curricula, and 5) Experiential Curricula.⁷⁶

“Child art”, self-expression and free-expression

The term “child art” is often used in literature by those who consider children’s drawings to be art, and who thereby take up the heritage from Franz Cizek. I do not share their view, and therefore I put the expression in quotation marks, “child art”. Victor Lowenfeld emphasises expression

1995. (Art – Programmes of study). pp. 2, 4, 6.

⁷⁵ Even though *Forming* was introduced into the curriculum in 1960, it took some years before the curriculum was introduced throughout the country.

⁷⁶ Goodlad, John I., M. Frances Klein and Kenneth A. Tye. “The Domains of Curriculum and Their Study.” In *Curriculum Inquiry: The Study of Curriculum Practice*, edited by Thomas H. Quinn and Michael Hennessey, 43–76. New York: McGraw-Hill Book Company, 1979. pp. 60–64.

when he writes about children's drawings, and he uses the term self-expression. I use self-expression when the focus is placed on drawing as a tool for expressing inner feelings and free-expression when the focus is on free imaginative drawing.

Non-intervention, non-interference and hands-off

The romantic tradition within children's self-expressive drawing has put teaching and instruction aside and caused an educational dilemma. In discussing this dilemma I have found it appropriate to use Arthur Efland's characterisation of Franz Cizek's methods as hands-off philosophy,⁷⁷ even if Cizek did not always practice his own method.⁷⁸ I also use non-intervention and non-interference in discussing the teacher's role and attitude to guidance and drawing instruction in *Forming*. There can be no general rule to the teacher's intervention, it depends upon the situation and the intention of the drawing activity.

Spatial Representations

Representation is deliberately expressed in plural, representations, in the title and throughout the thesis. This is because there is not just one spatial representation, but several. I have described three conceptions of space (see below), and of these three I have focused on two cultural conceptions of spatial representation: projection and visual appearance. This focus does not exclude other spatial representations, but I will emphasise the *purpose* of the representation, and then a piece of art will have another purpose than an architectural drawing. Spatial intelligence, as Howard Gardner describes it,⁷⁹ has not been focused in this thesis, since a discussion on intelligence lies beyond my field of competence.

Conceptions of Pictorial Representations of Space

1) Projection 2) Visual appearance 3) Axonometric projection

⁷⁷ Efland, Arthur D. *A History of Art Education: Intellectual and Social Currents in Teaching the Visual Arts*. London: Teacher College Press, Columbia University, 1990. p. 198.

⁷⁸ MacDonald, Stuart. *History and Philosophy of Art Education*. New York: American Elsevier Press, 1970. p. 344.

⁷⁹ Gardner, Howard. "Multiple Intelligences: Implications for Art and Creativity." In *Artistic Intelligences: Implications for Education*, edited by W. Moody, 11–27. New York: Teachers College Press, 1990.

The terminology used to describe spatial representations varies within different professional fields like engineering, architecture, design, art and art education. There are many depth cues connected to pictorial representation of space, but only a selection will be used in this thesis. Colour, texture gradient and aerial perspective are some of the areas excluded. And since this interdisciplinary thesis deals with questions touching upon architecture, design, art and art education, I have excluded some of the most specialised terminology and decided to apply terms appropriate to the field discussed.

Projections are used to describe scale and proportion, and in the literature on architectural drawing the terms used most often are plan, elevation/facade and section. The concept of orthographic projection, derived from orthographia used by Vitruvius, is another way of expressing elevation or facade, as ichonographia is another term for a plan projection. When drawings are related to maps, topography is used to describe the site. The designer uses almost the same terminology as the architect, possibly with the exception of facade and topography. Within the tradition of fine art painting, the use of projections intensifies periodically. When Heinrich Schäfer wrote his book on Egyptian art in 1919 he used the German term “geradvorstellig” on the Egyptian use of frontal representation, which was translated as “based on frontal images”. In the English translation of Schäfer’s book from 1986, Emma Brunner-Traut argues in an epilogue for using the expression “aspective”⁸⁰ instead of “based on frontal images”. In ancient Egyptian painting, plan and elevation were often shown simultaneously, and the elevation could be both frontal and profile in the same image. Opening outwards and flattening down⁸¹ is another way of expressing the Egyptian conception of representation. Literature on art education has often compared children’s drawings to ancient Egyptian painting. Children use plan, frontal elevation and profile elevation in their drawings, and when plan and elevation are mixed, the following terms are being used: simultaneous use of plan and elevation, mixing front view with profile,⁸² uplift plan, tipped plan, folding over and

⁸⁰ Brunner-Traut, Emma. “Epilogue. Aspective.” In *Principles of Egyptian Art*, by Heinrich Schäfer, 421–448. Oxford: Griffith Institute, 1986. p. 422.

⁸¹ Contenau, Georges. “Egypt and Mesopotamia.” In *Larousse Encyclopedia of Prehistoric and Ancient Art*, edited by René Huyghe, 123–134. London: The Hamlyn Publishing Group Limited, 1981. p. 130.

⁸² Lowenfeld, Viktor. *Creative and Mental Growth*. 3d ed. New York: Macmillan, 1957. p.

folding out. When children's drawings show what can be seen in a room if the wall is removed, it has been called transparency or x-ray drawing. This x-ray drawing has some similarities with the architect's use of section drawings.

When the intention of a drawing is to delineate how an object appears through the human eye, another set of depth cue terms is used. Terms from the complex fields of mathematics, physics and astronomy are excluded, as they do not serve the purpose of this thesis. In literature on children's drawings, art and art education, the terms overlapping and occlusion are used when objects are superimposed, to clarify their position in the pictorial space. In the same literature terms like diminishing, diminution, reduction in size, relative scale, size relations and enlarging are used to describe spatial relations in a two-dimensional representation. Foreshortening is also used to describe other aspects of diminution. According to Philip Rawson, who writes about art, general perspective is a way of organising the relative scales of objects to convince the viewer of the space content of the image.⁸³ There are many combinations connected to the term perspective, and in literature on children's drawing, art and art education, terms from both the Renaissance tradition and the expressive movement are used. Even if there is a mix in use of terminology in this literature, terms like general perspective, linear perspective, central perspective, artificial perspective, convergent perspective,⁸⁴ fixed perspective, bird's-eye view, one-point perspective, two-point perspective and three-point perspective are used when relating to the Renaissance heritage. Reverse perspective, divergent perspective, inverted perspective, naive perspective, natural perspective,⁸⁵ and parallel perspective are more often used in literature within expressive art and "child art". Perspective of value is used in literature when describing children's drawing and Egyptian paintings, but as the term indicates it is connected to values of importance or power, not to the

138. Lowenfeld prefers to use mix instead of simultaneous in this connection.

⁸³ Rawson, Philip. *Seeing Through Drawing*. London: British Broadcasting Corporation, 1979. p. 47.

⁸⁴ Arnheim, Rudolf. *Art and Visual Perception. A Psychology of the Creative Eye*. London: University of California Press, 1984. p. 264. Arnheim uses divergent and convergent perspective. He also mentions "inverted perspective."

⁸⁵ Flensburg, Ingelise. "Rumoppfattelser i børns billeder – relationer mellom rumlig orientering og visuel representasjon." Ph.D., Københavns lærerhøjskole, 1994. Flensburg uses natural perspective p. 32 and naive perspective p. 170.

pictorial representation of space. Lowenfeld connects perspective of value to haptic space.⁸⁶ Conceptions used in literature on design and architectural drawing have more in common with mathematics, physics and astronomy than with terms in the literature on fine art. Vitruvius used the term *scenographia* to describe a representation of a building where two sides are seen at the same time, as early as in the first century B.C. Alberto Pérez-Gómez, in his book from 1997, gives an overview on the use of perspective in architectural representation and on the discussion about true representation and mathematical construction of space. Within the heritage from Euclid and the Renaissance, mathematics was developed and used to set off an optical scientific perspective as a true representation of space.

An axonometric projection is used when the intention is to make a pictorial construction of space based on precise measurement along three axes. According to Pérez-Gómez, the origin of isometry may be traced back to the desire for precision that emerged after the Renaissance, while axonometric projection is related strictly to nineteenth and twentieth century European epistemology.⁸⁷ Axonometry and isometry appear especially in literature on architecture and design.

When I describe phenomena specific to a field such as children's drawing, art, art education, design or architecture, I use terminology belonging to the field when it is appropriate to the purpose. When pictorial representation of space is discussed on a general level, I have decided to use terminology that covers my interdisciplinary intentions, and I focus on two main conceptions of spatial representation:

- the concept of representing the world as it is known by projections, using terminology like plan, frontal/profile elevations and section
- the concept of representing the world as it appears through the eye, using terminology like overlapping, diminution and linear perspective

There are many levels of precision, when dealing with the term perspective as a pictorial depth cue. I have chosen to use linear

⁸⁶ Lowenfeld, Viktor. *Creative and Mental Growth*. 3d ed. p. 273.

⁸⁷ Pérez-Gómez, Alberto and Louise Pelletier. *Architectural Representation and the Perspective Hinge*. Cambridge, Mass.: The MIT Press, 1997. p. 312.

perspective as a general term since it is used and understood within the disciplines touched upon in this thesis. Even if I focus on appearance in spatial representation, I do not underestimate the influence of cultural conceptions when making pictorial representations of an appearance. Art history has confirmed how pictorial representations are influenced by culture, and consequently there can be no innocent eye as the impressionist doctrine advocated.⁸⁸

Imitation, Mimesis, Representations and Copy

Any pictorial imitation or representation of the visible world is a distortion since the image has two dimensions and the world has three dimensions. Consequently a two-dimensional image can not be a copy of the visible world. However, a pictorial representation can aim to imitate the appearance of the visible world, and such imitations are indeed useful in many connections inside art and design. The world representation is preferred to mimesis, copy and imitation in this thesis since it focuses on pictorial representations of space.

Art World

I have chosen to use the concept art world, as it is described by Arthur C. Danto,⁸⁹ when discussing how institutions of art, art critics and education form the prevailing concept of what is considered art and what is not within a certain period.

Visual Literacy

When I use visual literacy, both the making and the reading/understanding of visual symbols are included. The increasing use of the notion visual literacy is connected to symbolic representation on the computer, and in fashion and design, but I will not go into the linguistic field of semiotics in this thesis.

Democracy and Public Participation

⁸⁸ Gombrich, E. H. *Art and Illusion*. p. 250.

⁸⁹ Danto, Arthur C. *The Transfiguration of the Commonplace. A Philosophy of Art*. Cambridge, Mass.: Harvard University Press, 1981.

I have not intended to discuss different theories and models for democracy and public participation. I have focused on drawing, visual knowledge and understanding as a *precondition* for democracy and participation when decisions have to be made on the basis of pictorial representations.

Guidance, Instruction, Teaching and Learning

I have focused on learning throughout the thesis by using Goodlad's experienced curriculum and by giving attention to the juvenile's attainments in drawing. But since the aim of education is learning, and the teachers are employed to promote learning, I have found it interesting to reflect on the role of the teacher in the learning process. I use the word teaching in a broad sense, where it includes organising, guidance and instruction both in groups and individually, both inductively and deductively. Teaching is an arrangement for learning where the given situation and local conditions generate the methodology for teaching in order to attain given objectives and development.

Pupil, Juvenile and Youngster

I have had some difficulties in finding the appropriate English word for young people at the age of thirteen, which we in Norway call *ungdom*. When they are in a school situation I have used the word pupil, but otherwise youngster or juvenile, well aware that juvenile is a rather solemn designation used in legal connections.

Organisation

The thesis is divided into four parts, following an introduction with an overview of the field, the aim of the research and the formulation of the problem. Reflections connected to the research strategy, concepts and organisation are gathered in the first part titled Preliminaries. In part 2, the study "Draw 92/97" is described and discussed in relation to official documents and theory. The case study "Villa 3CM" is described and discussed in relation to relevant theory in part 3. Parts 2 and 3 are both completed with a summary. Reflections on the purposes of art education in compulsory school is the main focus in part 4, and these reflections are based on what is illuminated in part 2 and 3. The thesis is closed with a conclusion.

The following principles have been used in the design of the thesis:

Style sheet

The Chicago Manual of Style, 14a, is used unless otherwise stated. This humanistic style sheet has been chosen from the *EndNote*⁹⁰ software.

The Use of Italic and Translations

The italic style is used for original titles of publications and quotations. Some terms are also put in italic, for example, the name of the subjects *Forming* and *Art and Crafts (Kunst og håndverk)*, which has been done to separate the unique Norwegian subject names from a more general use of art, design, craft and drawing.

English is my second language, and translations done by me are put in roman type. Authorised English translations of titles e.g. *The Norwegian Ministry of Cultural Affairs*, are italicised. When a publication title is followed by the italicised Norwegian title in parentheses, it means that the English translation is mine.

Footnotes

Both explanations and references are organised as running footnotes at the bottom of each page so as to facilitate the reading of the text.

Raw Data

Raw data available from “Draw 92/97”:

All drawings in “Draw 92/97” (in manual archives)

The drawings from the follow-up study (in manual archives)

All the questionnaires (in manual archives)

The parts of the questionnaire used (on QSR NUD.IST/Zip)

Raw data available from the drawing contest arranged by the Norwegian Broadcasting Corporation (*Norsk Rikskringkasting*) (NRK) during the Olympic winter games in Albertville, 1992:

All transmissions from the contest (on video-tape/QSR NUD.IST/Zip)

Raw data available from “Villa 3CM”:

All the drawings (in manual archives)

⁹⁰ Bibliographic Software: EndNote Plus version 2.1.6.0 Niles & Associates, Inc.

Notes from the observations (in manual archives/QSR NUD.IST/Zip)
The interviews (on tape/QSR NUD.IST/Zip)

References to Raw Data

References to raw data in QSR NUD.IST are given by name of document and Text Unit, for instance: Karen Marie Ellefsen in OL-Studio 12.02.92, NRK (QSR NUD.IST, OL-Studio 1 – Text Unit 35–36)

Illustrations and Figures

Illustrations and diagrams are collected in a separate section (Figures) at the end of the thesis, but some are integrated in the text. References to the illustrations and diagrams are found in the text.

Anonymity

The participants in both studies have been given anonymity. In “Draw 92/97” all participants have been given numbers, boys have an “m” added for masculine (for instance 75004m), and girls have an “f” added for feminine (for instance 43060f). Any text on the drawings that could reveal the children’s identity has been hidden. Since the drawings and the questionnaires are gathered in a manual archive, there was no need to gain permission to use the drawings in this research. The participants in “Villa 3CM” are referred to by their position as architect, female client or male client.

Part 2: Drawing and the Compulsory School

The content of each subject in the Norwegian compulsory school is regulated by a national curriculum, so that all the compulsory schools offer the same subjects. But a written curriculum is no guarantee for what actually is taught and learned in the classrooms. Learning is a complicated issue; juveniles learn from many sources, among others, parents, siblings, friends, the subculture and mass media. Nevertheless, the content of the compulsory school system is offered to everyone, which makes the compulsory school the most important foundation for the development of culture and values for the future. The importance of compulsory education is emphasised in the cultural White Paper Culture in Our Time (*Kultur i tiden*), and every revision of the national curriculum is connected to discussions on values for the future by the public, politicians and professionals.

All pupils in the Norwegian compulsory education system have drawing as a part of the core subject *Forming/Art and Crafts (Kunst og håndverk)*. In order to discuss the importance of drawing in the compulsory school, a description of the educational practice and the pupils' outcome is relevant. The study "Draw 92/97" will describe a narrow, but interesting, part. Hopefully the study, with its limitations, can shed light on some of the juvenile's outcome in *Forming* from middle school (ages 10–13). The outcome from education is deliberately focused in this study, as my way of emphasising learning rather than teaching. A study of what teachers of *Forming* thought they had promoted with their instruction would illuminate another aspect.

In this chapter the study "Draw 92/97" will be presented and discussed.

THE STUDY OF “DRAW 92/97”

Approach and strategies for the study “Draw 92/97” are explained and discussed in Part 1. In short, the methods used are qualitative but some of the discussions are based on quantified data. The study is limited to drawings done by children who liked to draw when they participated in a contest in 1992. The theme of the drawing contest was connected to the Olympic winter games in Albertville from 9–23 February 1992. The main prize was a trip for three persons, including tickets to a sports event, to the Olympic games in Lillehammer in 1994, and other prizes, like T-shirts, were given to daily winners throughout the two weeks.⁹¹ Participation in this contest went far beyond all expectations, resulting in about 100,000 drawings sent to the Norwegian Broadcasting Corporation (*Norsk Rikskringkasting*) (*NRK*),⁹² and was an enormous success.⁹³ Earlier drawing contests in NRK’s children’s television programs seldom had more than one-tenth of this response. Of these 100,000 drawings, my selection consists of approximately 20,000, randomly collected. Out of these 20,000, those sent in by classes or drawn together with siblings were excluded at this time, as were drawings with no specification of age. The remaining participants were sorted according to age and gender, leaving a final selection of more than eleven thousand participants from the ages of six to thirteen. None of the children were present in Albertville when the drawings were made; it was a totally media-initiated interest that activated 100,000 children to make these drawings. This clearly shows how children can be activated by mass media, and it is an argument against the alleged passivity as television’s contribution to childhood. The overwhelming participation can be attributed to the great media focus combined with the Norwegian athletic triumphs and the desirable prizes in the drawing contest. It could also have been caused by the children’s awareness of doing something important, valued by the adult world. These factors made participation in the contest attractive.

⁹¹ Karen Marie Ellefsen in OL-Studio 12 February 1992, NRK (QSR NUD.IST OL-Studio 1 – Text Unit 35–36).

⁹² Terje Dalby in OL-Studio 22 February 1992, NRK (QSR NUD.IST OL-Studio 4 – Text Unit 52).

⁹³ Finborud, Arne. “Alt lyktes – også for NRK.” *Dagbladet*, 23 February 1992.

Participation in the drawing contest in 1992

	boys	%	girls	%	
6 year	643	46,3	745	53,7	1388
7 year	795	49,4	814	50,6	1609
8 year	931	49,7	943	50,3	1874
9 year	819	48,3	876	51,7	1695
10 year	798	44,1	1011	55,9	1809
11 year	547	40,5	804	59,5	1351
12 year	429	36,1	758	63,9	1187
13 year	135	33,4	269	66,6	404
sum	5097		6220		11317

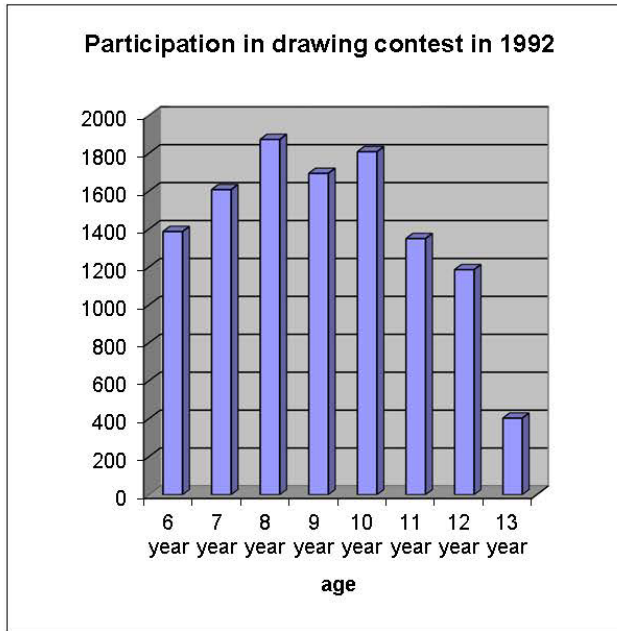


Figure 2 Participation in Drawing contest 1992

My selection from the contest in 1992 contains 11,317 drawings made by children and juveniles from the ages of six to thirteen. The age spread of the participants (see Figure 2) makes an interesting basis for the discussion on juvenile drawing activity. The diagram shows a remarkable decline in drawing interest after the age of twelve for both genders. The gender participation in the selection of eight-year-olds shows an equal interest from boys and girls: boys 49.7% and girls 50.3%.⁹⁴ The 1992 selection of thirteen-year-olds had 33.4% boys and 66.6% girls, which shows that the decline of interest in drawing is more dramatic for boys than for girls. This declining interest on the part of some of the boys can hardly be explained by claiming sport as a gender-related theme favoured by girls – the opposite would have been expected.

The parents of the eight-year-old children who had participated in the drawing contest in 1992 were contacted by mail in February 1997, and asked if they would permit their child to participate in the follow-up study (see Figure 3), and a letter to the juveniles (see Figure 4). There were 1,644 enquiries posted in which the juveniles were asked to answer a questionnaire and to make three new drawings:

- 1) Make a drawing from a sports activity (the World Championship in Nordic Disciplines was in progress in Trondheim)
- 2) Make a drawing of what you can see inside a room
- 3) Make a drawing of whatever you want

In the questionnaire they were asked about their leisure-time activities and if drawing was included. They were also asked if they had learned to draw in school. Finally, they were asked if they still liked to draw. The questionnaire called for both schematic answers and personal comments.

The response from the juveniles in 1997 was 24.8% (see Figure 5), which is rather low for a survey but it gives interesting information about this age group. The response uncovered two instances where the children had died, constituting 0.1% of my eight-year selection from 1992.

Approximately one-fourth of the thirteen-year-olds continued to draw of their own free will, while approximately three-fourths stopped drawing in their leisure-time. The declining interest in drawing activity might be

⁹⁴ Participation in the drawing contest for eight-year-olds is based upon drawings from 1874 children (49.7% boys, 50.3% girls). The follow-up study is based on the drawings from 1644 children since those with no return address were excluded, but the gender dispersion is similar (49.8% boys, 50.2% girls).

Enquiries sent out in 1997 to juveniles who participated in the drawing contest in 1992 , when eight years old						
postal district	boys	%	girls	%	total	%
0-1299	38	52,8	34	47,2	72	4,4
1300-1999	97	47,8	106	52,2	203	12,3
2000	104	49,5	106	50,5	210	12,8
3000	103	47,7	113	52,3	216	13,1
4000	101	52,6	91	47,4	192	11,7
5000	104	50,7	101	49,3	205	12,5
6000	86	52,4	78	47,6	164	10,0
7000	81	48,8	85	51,2	166	10,1
8000	48	42,5	65	57,5	113	6,9
9000	56	54,4	47	45,6	103	6,3
	818	49,8	826	50,2	1644	100
Response to enquiry in 1997*						
postal district	boys	%	girls	%	total	%
0-1299	6	46,2	7	53,8	13	3,2
1300-1999	18	39,1	28	60,9	46	11,3
2000	13	30,2	30	69,8	43	10,5
3000	13	26,5	36	73,5	49	12,0
4000	19	35,2	35	64,8	54	13,2
5000	21	42,0	29	58,0	50	12,3
6000	19	37,3	32	62,7	51	12,5
7000	18	43,9	23	56,1	41	10,0
8000	7	21,2	26	78,8	33	8,1
9000	10	35,7	18	64,3	28	6,9
	144	35,3	264	64,7	408	100
						response 24.8%**

Participation in "Draw 92/97"

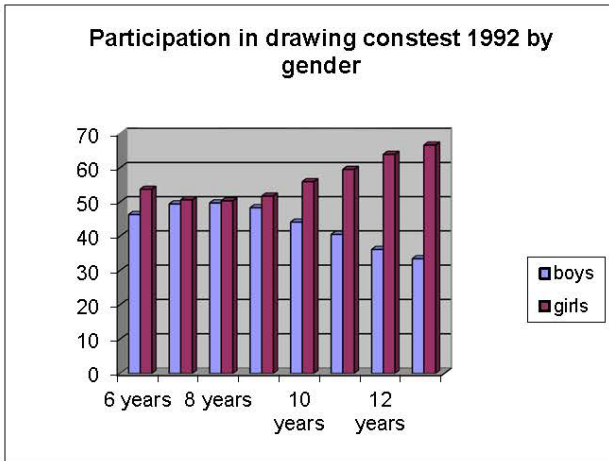
response five years later

* answers from the parents of two children who had died during the five years, are not included

** 110 juveniles did not receive the letter since the postal district returned the letters unopened. Excluding these, the response would have been 26.6

Figure 5 Enquiries with responses to the follow-up study, 1997.

	boys %	girls %
6 years	46,3	53,7
7 years	49,4	50,6
8 years	49,7	50,3
9 years	48,3	51,7
10 years	44,1	55,9
11 years	40,5	59,5
12 years	36,1	63,9
13 years	33,4	66,6



8 years 1992	49,8	50,2
13 years 1997	35,3	64,7

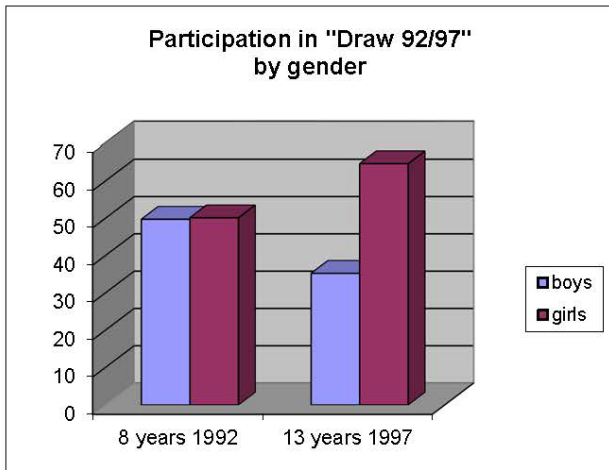


Figure 6 Participation in the drawing contest in 1992 by gender. Response in the follow-up study in 1997 by gender.

explained by the onset of puberty and by other interests competing for the juveniles' time. But it might also be explained by the juveniles' growing self-criticism of their own achievements, which makes them give up drawing if they don't feel their skills fulfil their own anticipation. The study does not show what happens after the age of thirteen. Perhaps the juveniles at thirteen were just taking a short break in their drawing activity, but I doubt it.

In 1992 the nation-wide response was equal from eight-year-old boys and girls, but in the follow-up study from 1997, when the children had reached the age of thirteen, the response from girls was far greater than that from boys: 64.7% girls and 35.3% boys (see Figure 6). Approximately the same number of thirteen-year-olds responded in the 1997 follow-up study as those who participated in the contest in 1992, and the gender dispersion is similar. This could be interpreted to mean that girls continue to draw much more than boys. It could also mean that girls are more conscientious than boys, when asked to participate in a study that entails making three drawings and answering a questionnaire with no other reward than a music-CD for a quick response.

The Drawings

The 1992-drawings showed a plurality of viewpoints in the representation of the sport arenas, the award ceremony being a favourite topic for both boys and girls. Simultaneous use of plan and elevation was often found in the drawings, but frontal and profile elevations were most used. Overlapping and diminution were rare, as was the use of linear perspective. The most immediate difference between the drawings from 1992 and those from 1997 was the detailing, and an increasing use of overlapping and diminution. As explained earlier, my analyses and discussions of the drawings are related to two main conceptions of spatial representation: representing the world as we know it to be, and representing the world as it appears through the eye. When the juveniles drew what they could see inside a room, 42% used a frontal/profile elevation with almost no overlapping and diminution while 7% used a plan drawing and 46% made use of overlapping and diminution (see Figure 7). Of the juveniles who represented the room by using projections, almost half used a mixture of plan, frontal- and profile elevation. One out of five juveniles who had chosen to draw what they could see inside a room by using overlapping, diminution and linear

perspective seemed to have a fairly good understanding of these cultural conventions.

The questionnaire

As mentioned earlier, the juveniles were asked to respond to a questionnaire. I have concentrated on the second question, concerning drawing at school. Twenty percent of the juveniles responded that they had learned a lot about drawing at school, 69% that they had learned something, and 9% that they had learned nothing (see Figure 8). The juveniles were encouraged to give their own comments in addition to the question: *Have you learned to draw at school?* Nine out of ten juveniles made such comments, from which the following were chosen since they shed light on how the juveniles experience everyday life at school. The comments show a variation and they are grouped according to the questionnaire: 1) those who responded that they had learned a lot about drawing at school, 2) those who had learned something about drawing, and 3) those who had learned nothing about drawing at school.

1) Comments to the question: *Have you learned to draw at school?*

From those juveniles who responded that they had learned *a lot* about drawing at school:

Yes, I have. We have a clever drawing teacher at school. (*Ja det har jeg. Vi har en flink tegnelærer på skolen.*) (95526m)

I have learned something about drawing at school. I have mostly learned to draw by myself. (*Jeg har lært en del tegning på skolen. For det meste har jeg lært av meg selv.*) (52420m)

I have learned quite a lot about drawing in school. I learned to draw shade on things and how we draw things from the side. (*Jeg har lært ganske mye tegning på skolen. Jeg lærer og tegne skygge på ting og åssen vi tegner ting fra siden.*) (02040m)

Yes, we have drawn in three dimensions and from other angles. (*Ja, vi har tegnet i 3D og andre vinkler.*) (01349m)

I have three drawing periods every Friday. Then I learn texture, theory and shading. (*Jeg har tre timer med tegning hver fredag. Da lærer jeg teksturer, teori og skygger.*) (80382m)

I have learned almost everything at school, but also a little from my mother. (*Jeg har lært det meste på skolen, men også litt av min mor.*) (74631f)

Distance in the drawing (for instance to look down a street). Shading. Perspective. (*Avstand i teikninga, (til dømes å sjå inn i ei gate). Skyggelegging. Perspektiv.*) (92685f)

We have had the colour circle, charcoal drawing and shading. We have had enlarging and other assignments. (*Me har hatt om fargesirkelen, kullstifttegning og skyggelegging. Me har hatt om forstørring og andre oppgaver.*) (24060f)

I have learned about details and shape, shading and things like that at school, but I drew a lot before I started school, but they were very simple. Through what I have learned at school I have started to draw more detailed. (*Jeg har lært detaljer og form, skygge og slikt på skolen, men jeg tegnet mye før jeg begynte på skolen, men de var veldig enkle. Etter det jeg har lært på skolen har jeg begynt å tegne mer detaljert.*) (42870f)

I have learned something about drawing at school, but also at home. In primary- and middle school (ages 7–13) we had special periods for drawing. (*Jeg har lært å tegne en del på skolen, men også en del hjemme. På barneskolen hadde vi egne tegnetimer.*) (03945f)

One out of five youngsters responded that they had learned *a lot* about drawing at school, and this is reflected in the comments from the satisfied pupils (e.g. 74631f, 80382m, 02040m and 95526m). No one ever mentions that they have too much drawing at school. When relating what they had learned at school, classical issues such as shading and perspective are mentioned (e.g. 02040m, 01349m, 80382m, 92685f and 24060f). One boy comments that he had learned something at school, but had mostly learned to draw by himself (52420m), which indicates that the youngsters had difficulties in grouping their answers.

2) Comments to the question: *Have you learned to draw at school?*

From those juveniles who responded that they had learned *something* about drawing at school:

We have learned something. Such as perspective and colour combinations. We have two periods a week called

forming/drawing, but they are often used for other things. (*Vi har lært noe. Sånt som perspektiv og fargesammensetninger. Vi har to timer i uka som heter tegneforming, men de blir ofte brukt til andre ting.*) (51614f)

We had a little in 6th grade about perspective, etc., but that's all. (shading). (*Vi hadde litt i 6. kl om perspektiv og sånn, men det er alt. (skyggelegging).*) (82412f)

In 5th and 6th grade we divided the classes into three: shop, textiles and forming. In forming we learned something about drawing, but it wasn't very much. (*I 5. og 6. klasse delte vi klassene in i tre: sløyd, tekstil og forming. På formingen lærte vi noe om tegning, men det var ikke mye.*) (03221f)

I have learned a little about shading and such. We drew streetlights on a road that went "into" the picture, and boxes. And I learned a little from a girl friend. (*Jeg har lært litt om skyggelegging og sånt. Vi tegnet lyktestolper på en vei som gikk "inn" i bilde, og kasser. Og så lærte jeg litt av en vennine*) (03230f)

We have learned about overlapping and to look at things while you are drawing. I think that's about it. (*Vi har lært om overlapping og se etter ting mens du tegner. Jeg tror nesten det er alt.*) (73716f)

I have learned a little about drawing at school. One doesn't learn so much about drawing, one is just told to draw. In 6th grade we had a teacher in drawing who did a lot more with us than drawing in colour. We drew among other things with charcoal. (*Jeg har lært litt om tegning på skolen. Man lærer ikke så mye om tegning, man får beskjed om å tegne. I 6. klasse hadde vi en tegnelærer som gjorde mye annet med oss enn å tegne med farger. Vi tegnet bl.a. med kullstifter.*) (93722f)

I have learned something about drawing in school. Drawing isn't a subject in lower secondary school (ages 13–16). We have textiles, but we hardly ever draw. It's really a shame. We do mostly embroidery and other important things. (*Jeg har lært noe om tegning på skolen. Det er ikke noe tegnefag på ungdomsskolen. Vi har tekstil, men vi tegner nesten aldri. Det er veldig synd. For det meste lager vi broderi og andre viktige ting.*) (13970f)

I learned of course to draw by myself (at the age of 2–3), but in school we have learned to get a more "natural" expression in the

drawings (especially faces). (*Jeg lærte selvfølgelig å tegne av meg selv (i 2–3 årsalderen), men på skolen har vi lært å få litt mer “levende” uttrykk i tegningene (spesielt ansikter)*) (23970f)

We didn't learn very much drawing in elementary school. There we just used to draw without getting any “response” from the teachers. Now in lower secondary school (ages 13–16) we learn different things about shading and position. (*Vi lærte ikke så mye tegning på barneskolen. Der pleide vi bare å tegne uten å få “respons” fra lærerne. Nå på ung. skolen lærer vi forsj. om skygger og plassering.*) (64120f)

In 5th we had a very good teacher in forming, we learned a lot from her. (*I 5 hadde vi ein veldig god lærar i forming, vi lærte mykje av henne.*) (14270f)

Yes, a little. In sixth grade we learned a little about colour. We learned to draw people, patterns and perspective. Earlier we learned a little about colouring, shadows. (*Ja, litt. I sjette klasse lærte vi litt om farger. Vi lærte å tegne mennesker, mønster og perspektiv. Før har vi lært litt om fargelegging, skygger*) (64500f)

I have learned a little from school, a little from TV. Most of it is probably natural. (*Jeg har lært litt fra skolen, litt fra TV. Det meste er vel medfødt.*) (14550f)

Something I learned at school, mostly in 6th grade. There we learned how to draw three-demisional and more that was a little difficult. I really learned to draw in kindergarten. (*Noe har jeg lært på skolen, mest i 6. kl. Der lærte vi hvordan vi skulle tegne tredemmisjonalt og mer som var litt innvikla. Jeg lærte egentlig å tegne på førskolen.*) (54790f)

No, I have learned by myself. (*Nei, jeg har lært av meg selv.*) (44700f)

We have in a way learned it, but none of the teachers correct the drawings so they can become nicer. That's not so good. (*Vi har på en måte lært det, men ingen av lærerne retter på tegningene så de kan bli finere. Det er dumt.*) (05095f)

In school there isn't much that we draw and if we do, we don't learn about it, then we just draw what we feel like. (*På skulen er det ikkje mykje vi teiknar og om vi gjer det lærer vi ikkje om det da bare teiknar vi som vi vil.*) (66760f)

I have learned to draw a little in school, but I have done a lot on my own. The teachers have said and shown me a little about how I should draw. (*Eg har lært å teikne litt på skulen, men eg har klart mykje sjølv. Lærarane har sagt og vist meg litt om korleis eg skal teikne.*) (56878f)

No, I haven't learned to draw in school. Not very much at least. I and us others at my school hardly ever draw when we are in school. (*Nei, jeg har ikke lært å tegne på skolen. Ikke veldig mye i alle fall. Jeg og vi andre på min skole tegner nesten aldri når vi er på skolen.*) (27500f)

I have actually learned little of my drawing at school. I have learned by myself little by little. (*Jeg har egentlig lært lite av tegninga mi på skolen. Har lært av meg selv etterhvert.*) (57525f)

We have some drawing at school, but I wish we could have had a little more of it. (*Vi har litt tegning på skolen, men jeg kunne tenkt meg å kunne hatt litt mere av det*) (27700f)

I have always enjoyed drawing. Ever since I was quite little. I have not learned very much about drawing in school. Only some little tips now and then. As a matter of fact, there seems to be less and less drawing as you get older. (*Jeg har alltid likt å tegne. Helt siden jeg var ganske liten. Jeg har ikke lært noe særlig om tegning på skolen. Noen småtips av og til bare. Så jeg synes godt at vi kunne lære mer om det. Forresten blir det liksom mindre og mindre tegneforming når du blir eldre.*) (09220f)

In elementary school we had drawing. In lower secondary school (ages 13–16) the school year is divided into three, 1 part shop, one with handicrafts and one drawing/forming. Now I have just got finished with shop and am going to begin with drawing. (*På barneskolen hadde vi tegning. På ungdomsskolen er skoleåret delt i 3. 1 del med sløyd, en med håndarbeid og en med tegne/forming. Nå har jeg nettopp blitt ferdig med sløyd og skal begynne med tegning.*) (29500f)

We have 2 periods every other week of drawing. We have a very good drawing teacher, so we learn to draw lots of different stuff. (*Vi har 2 timer annenhver uke med tegning. Vi har en veldig god tegnelærer, så vi lærer å tegne mye rart.*) (09845f)

I have learned about which half of the brain one uses when one draws self-portraits. (*Jeg har lært om hvilke hjernehalvdel man bruker når man tegner selvportrett.*) (71364m)

No, I have not learned to draw in school. I have learned most from my brother and a little from my grandfather. My brother has a great talent for drawing. He is 15 years old. (*Nei jeg har ikke lært å tegne på skolen. Jeg har lært mest av broren min og litt av bestefaren min. Broren min har et kjempetalent i å tegne Han er 15 år.*) (71405m)

We learned to create depth in the drawings. (*Vi lærte å lage dybde i tegningene*) (42215m)

I have learned a few techniques at school in the drawing period, but I also knew very much of what we were learning. I have mostly taught myself to draw from magazines, comic books, and so on, like squares and circles, etc. (*Jeg har lært noen få teknikker på skolen i tegnetimen, men jeg kunne også veldig mye av det vi lærte. Jeg har lært for det meste og tegne selv etter blader, tegneserier osv som firkanter og sirkler o.l.*) (23500m)

I have learned something in drawing at school. We have an amateur painter as teacher he taught us to draw in perspective. (*Eg har lært noko å tegne på skulen. Me har ein amatørmålar som lærar han lærte oss og teikna i perspektiv.*) (14050m)

I have hardly learned anything at school. (*Eg har nesten ikkje lært noe på skole.*) (45086m)

In elementary school we learned a little in 6th grade. That was partly because we had a teacher who had a feeling for drawing. (*På barneskolen lærte vi litt i 6. klasse. Det var litt fordi vi hadde en lærer som hadde sans for tegning.*) (95310m)

I learned a little in elementary school about perspective and Figurative/non-Figurative. (*Jeg lærte noe på grunnskolen om perspektiv og Figureativ/non-Figureativ.*) (87700m)

We (my class) have learned about caricature and shading, and it is really all we have learned. (*Vi (klassen min) har lært om karikatur og skyggelegging, og det er nok alt vi har lært.*) (48491m)

I have learned a little at school, but most I have found out by myself. (*Litt har jeg lært på skolen men jeg har funnet ut det meste selv.*) (09192m)

Seven out of ten youngsters meant that they had learned *something* about drawing at school. Their comments uncovered great differences in how *something* was interpreted, from almost nothing (e.g. 27500f, 44700f, 66760f, 57525f, 45086m and 71405m) to a great deal (e.g. 42215m, 09845f, 64500f and 14270f). This could have been avoided by offering the juveniles two or three gradations for *something* in the questionnaire. The youngsters' comments uncover a practice in which they are just asked by their teachers to draw without any instruction (66760f, 64120f and 05095f) and some clearly express that they would like to learn more about drawing (e.g. 09220f and 27700f). In the absence of instruction in drawing at school, they mention that they learn drawing from themselves, siblings, parents and others (09192m, 23500m, 71405m, 57525f, 23970f and 03230f). One girl uncovers that the lessons meant for drawing are used for other activities (51614f), and another girl uncovers that drawing is not offered at her school at all, only textiles (13970f). One girl describes how *Forming* is organised and divided into woodwork (*sløyd*), textiles and *Forming* at her school, and drawing was only a small part of *Forming* (03221f).

- 3) Comments to the question: *Have you learned to draw at school?* from those juveniles who responded that they had learned *nothing* about drawing at school:

We have had drawing lessons at school, but we have not learned anything. We have just done whatever we wanted to. (*Me har hatt tegnetimar på skulen, men me har ikkje lært noko. Me har berre fått gjera kva me vill.*) (75600m)

No, I have learned to draw by myself. (*Nei, jeg har lært å tegne av meg selv.*) (01580m)

We have not learned anything about drawing in primary and middle school (ages 7–13) or lower secondary school (ages 13–16). (*Vi har ikke lært noe om tegning på barneskolen eller ungdomskolen*) (43185f)

I have not really learned how to draw at school, I have learned that by myself. (*Jeg har vel ikke lært å tegne på skolen, det har jeg lært av meg selv.*) (50673m)

I have not learned anything about drawing at school. We have had drawing lessons twice a week where we were free to draw

whatever we wanted without learning anything, had fun. (*Eg har ikke lært noe om tegning på skolen. Vi har hatt teiknetimar 2 gonger i veka der vi teikna fritt utan å læra noko, hadde det gøy.*) (06901m)

I learned to draw at home from my mother and father. (*Jeg lærte å tegne hjemme av mamma og pappa.*) (47650m)

I have had drawing only once at school, and then we learned to draw the horizon, but I already knew that. (*Jeg har bare hatt tegning en gang på skolen, og da lærte vi og tegne til horisonten, men det kunne jeg fra før.*) (71746f)

I have not learned anything about drawing at school. I have learned most of it from my mother, and I have also found out many drawing techniques on my own. (*Jeg har ikke lært noe av tegnekunnskapene mine på skolen. Jeg har lært mesteparten av min mor også har jeg funnet ut mange tegneteknikker selv.*) (91535f)

I have “learned” to draw by myself. At school we have only learned how to mix colours. (*Jeg har “lært” å tegne av meg selv. På skolen har vi bare lært hvordan vi blander farger.*) (04462f)

One out of ten youngsters answered that they had learned *nothing* about drawing at school, and it is not difficult to find comments where this is expressed (e.g. 06901m, 43185f and 75600m). They frequently mention that they have taught themselves (e.g. 01580m, 50673m and 04462f), or learned from others (e.g. 47650m and 91535f). The experience of being left to do whatever they wanted in drawing sessions was also present in this group (e.g. 75600m and 06901m).

Learned at school

Regarding all the comments, it is interesting to note that there are great disparities in what the juveniles have experienced in their drawing lessons. The youngsters’ comments are interesting as such, but the most important aspect appeared when the answers from the questionnaires were compared with the drawings. Sometimes the correspondence between the drawings and what the juveniles thought they had learned was obvious, but more often the correspondence between what was said and what could be seen in the drawings seemed to conflict. The girl who made the drawings in Figure 9a, b, c, d, e, has responded that she had learned a lot

about drawing at school. She had this comment to the question: *Have you learned to draw at school?*

Yes, but also at home. We had *Forming* every week in primary- and middle school (ages 7–13), and there we learned a lot, for instance to draw the human figure, but we drew a lot of other things too. Now I am in lower secondary school (ages 13–16), but we draw a lot there too, from the textbooks and stories told by the teachers. (*Ja, men også hjemme. Vi hadde forming hver uke på barneskolen, og der lærte vi mye, bl.a. og tegne mennesker, men vi tegnet mye annet også. Nå går jeg på ungdomsskolen, men vi tegner mye der også, fra lærebøkene og historier lærerne forteller.*) (42760f)

She has two drawings from Albertville, one from the slalom slope and one from a cross-country event. In the drawing of the cross-country event she has used profile elevation for all persons, and to describe the spectators standing behind the fence and in front of the Olympic fire she has used overlapping. In the drawing from the slalom event the three complete figures are given a frontal representation, while the skis on the runner are folded down. All the heads of the spectators are shown in profile with no diminution, and the fence is folded down. There is almost no overlapping or diminution to be seen. There seems to be value perspective, in that the skier in front is smaller than the important skier in the run, although the difference in size may be due to lack of space and avoidance of overlapping. She has depicted the Olympic fire in the two drawings seen from different angles. At the age of thirteen she made a drawing from a cross-country event, where the arena and the skis are seen from above, while the runner, trainer and goal banner are seen frontally. The spectator areas are folded out and contain almost no overlapping or diminution. She has used circles to represent most of the spectators; the active ones have been represented in profile and frontal elevation. Her drawing of a room is basically a frontal and profile representation, but the carpet on the floor and the top of the stove have been given an uplift position as in a plan drawing. The tablecloth overlaps the chairs and the staircase overlaps the window. Her free drawing is from the seaside, and includes overlapping, plan and elevation. At the age of thirteen she continued to use the same concept of drawing as she did at the age of eight, with simultaneous use of plan and elevation.

The boy, whose drawings can be seen in Figure 10a, b, c and d, responded that he had learned a lot about drawing at school. Here is his comment to the question: *Have you learned to draw at school?*

Yes, we have learned to draw at school. I have also had a course in drawing. (*Ja, vi har lært og tegne på skolen. Jeg har også gått på tegnekurs.*)⁹⁵ (57800m)

When he was eight, he had drawn the award ceremony, like so many other children in the drawing contest. The three winners are seen on the award platform; there is almost no overlapping in the drawing, except for the Olympic rings and hands barely crossing the winner's legs. The figures are represented by one simple schema: straight arms and legs, no feet, noses or mouths. At the age of thirteen, he made a drawing of a) a combined sports area with ski-jump and slalom, b) a room with an aquarium, television set, table and chairs, and c) a car. The drawing of the sports event is simple and it shows almost no overlapping, except for some on the skiers. There is almost no diminution, but the slalom gates have a kind of reverse diminution. All the figures have been given a frontal representation. In the drawing of a room, it is difficult to decide if the governing principal is plan or elevation. The room is seen from above, as is the table and the rug, while the aquarium and the television set are shown in frontal elevation. The straight chairs are seen in profile, but the back legs of each chair have been diminished as in linear perspective. The two armchairs are represented as seen at an angle from above and are shown with overlapping. The room is represented by the simultaneous use of plan, elevation and perspective. I have not managed to identify the black and brown shape at the right side of the drawing; it might be a wood-burning stove. In his drawing of the car he uses the concept of depicting the visible world as it appears, even if the front of the car has been given a touch of elevation. Since this drawing varies rather much from his other drawings it is easy to believe that cars are a central part of his drawing repertoire, while skiers and interiors are not. He might have used a photo or an advertisement as a model, or he may have had some adult assistance. I choose to believe that he has done it by himself, and that he has given himself more time to do the drawing of the car and the

⁹⁵ Probably an after-school activity, since elective courses are normally not offered at this grade level.

room than the drawing of the skiers. His collection of drawings is interesting because there is such a variation, and when it comes to the pictorial representation of space, he barely uses overlapping and diminution. He states that he has learned *a lot* about drawing at school, but this knowledge does not seem to have included the cultural conceptions of spatial representation. He might deliberately have chosen to use plan, elevation and perspective simultaneously, but I doubt it.

In the drawings in Figure 11a, b, c, d, there are almost no signs of change from the age of eight to the age of thirteen, as far as pictorial representation of space is concerned. Some would perhaps regard her use of colour as a reverse development, but that is not part of this study. In her drawings at the age of eight she has chosen to do a frontal representation of the award ceremony. There is almost no overlapping: the hats are balanced on the top of the heads, and not even the Olympic rings overlap each other. All the winners follow the same schema, no feet or hands, but smiling mouths and sloping noses. A small person in the right hand corner has a different face. At the age of thirteen she responded that she had learned nothing about drawing at school, and she had this comment to the question: *Have you learned to draw at school?*

We have Forming two hours a week. We draw, but we don't learn anything from it. (Vi har forming 2 timer i uka. Vi tegner men lærer ikke noe ut av det.) (82624f)

Her drawings from the follow-up study show no overlapping, except for a girl who is standing in front of a bench. She really seems to deliberately have avoided overlapping when she was drawing the figure under a quilt in bed. If the background in the picture of the award ceremony represents two ski-jumps, this is about the only diminution in the drawings she made at the age of thirteen. By making the gold winner larger than number two and three, she seems to have used a value perspective. The sloping noses are still there, but she has obviously put much more effort into the drawing at the age of eight than in those at the age of thirteen.

Learned about perspective at school

The girl who made the drawing of the room seen in Figure 12 responded that she had learned a lot about drawing at school, and she had this comment to the question: *Have you learned to draw at school?*

We have learned quite a lot. About perspective, shading, how we draw people. Size and shape + much more at school. (*Vi har lært ganske mye. Om perspektiv, skyggelegging, hvordan vi tegner folk. Størrelse og form + mye mere på skolen.*) (15310f)

Her way of drawing the room, long and narrow with a central vanishing point, is typical of many who say they have learned about perspective at school. In these drawings the furniture is often placed up against the wall, as if glued there. The boy who made the drawing of a room that can be seen in Figure 13 responded that he had learned some drawing at school and he had this comment to the question: *Have you learned to draw at school?*

We have learned a little about perspective drawings of houses. We have learned that if we are going to draw something from another piece of paper, then it is best to put the sheet upside-down and try not to focus on the picture itself, but on the lines. (*Vi har lært litt om perspektivtegninger av hus. Vi har lært at hvis vi skal tegne noe fra et annet ark, så er det best å legge arket oppned å prøve å ikke fokusere på selve bildet men på strekene.*) (52034m)

His teacher had probably been influenced by the methods of Betty Edwards.⁹⁶ In his drawing of a room, it is likely that he has been trying to represent the visible world by overlapping central parts of the sofa. The table is elevated and the candlesticks have been given frontal representation. His drawing would seem to indicate that he is struggling, and the result is a mixture of overlap, plan and elevation. Many juveniles struggle with some of the same problems.

Learned from relatives and acquaintances (home)

Some juveniles mention that they have learned to draw from relatives and acquaintances. The girl whose drawing is shown in Figure 14 responded

⁹⁶ Edwards, Betty. *At tegne er at se. Indføring i frihåndtegnning*. Translated by Hanne Grøn. København: Nyt Nordisk Forlag Arnold Busck, 1982. pp. 52–57.

that she had learned something about drawing at school, and had this comment to the question: *Have you learned to draw at school?*

I have learned a little about drawing at school but I have learned most at home. (*Eg har lært litt om tegning på skulen men mest har eg lært heime.*) (46860f)

In her drawing of a room she uses overlapping and linear perspective. She has obviously had some trouble with the top edge of the window at the left side of the drawing, but her representation of the chair and the ellipses of the lamp are rather impressive. The boy who made the drawing in Figure 15 responded that he had learned something, and had this comment:

I have not learned especially much about drawing at school. I have learned most at home. (*Jeg har ikke lært spesielt mye om tegning på skolen. Jeg har lært mest hjemme.*) (74019m)

His drawing shows a bedroom with an half opened door. It takes some courage to draw a door like this, and it seems as if he had tried to draw what appears in front of him. He has used overlapping and linear perspective.

The boy who made the drawing in Figure 16 had chosen to make a plan drawing to show what he could see inside a room. When asked if he had learned to draw at school he answered:

I have learned a little at school, but I know an architect. That's where I have learned the most. (*Jeg har lært litt på skolen, men jeg kjenner en arkitekt. Det er der jeg har lært det meste.*) (03713m)

Learned from siblings and friends

Others mentioned that they had learned to draw from their sisters and brothers. The drawing shown in Figure 17 was made by a boy who responded that he had learned something at school. He had this comment to the question: *Have you learned to draw at school?*

A little. Not much. I have learned most by myself and some from my big brother. (*Littegrann. Ikke mye. Jeg har lært mest av meg selv og litt av storebroren min.*) (99300m)

In his drawing of a room he has used a frontal and profile representation. The drawing has a comical touch. There is a trace of overlapping in his depiction of the man in the armchair. The girl, who also responded that she had learned something about drawing at school, had this comment to the same question.

I have learned to draw at school, but I have learned most at home from my brother and sister. They are rather clever. (*Eg har lært å teikne på skolen, men eg har lært mest heime av broren og søsteren min. Dei er ganske flinke.*) (56265f)

Her drawing of a room can be seen in Figure 18. Her drawing is based mainly on projections where plan and elevation are used simultaneously. The bed with the cat, the sofa with the guitar, the desk-top with the belongings, the oval table, the seat of the chair and the carpet on the floor are all represented as seen from above. The rest of the chair, the drawer section of the desk and the legs of the table are represented frontally. There is some overlapping in the drawing: the chair overlaps the desk, the television set overlaps the table and the guitar overlaps the sofa. She has also used a perspective representation for the television, pencil-case, and base of the chair.

Learned by themselves

There are many interesting comments made by juveniles when asked the question: *Have you learned to draw at school?* Some answers can indicate that they think this is a really strange question. And perhaps it is, especially for those who seem to believe that drawing is a gift from birth, which has no need for further enculturing. Girls in particular express this with their answers:

No! I have been drawing since I was little. (*Nei! Eg har teikna heilt sidan eg var liten.*) (05247f).

Another girl commented:

Of course I learned to draw by myself (at the age of 2–3), but at school we have learned to get a little more “life” into the drawings (especially faces). (*Jeg lærte selvfølgelig å tegne av meg selv (i 2–3 årsalderen), men på skolen har vi lært å få litt mer “levende” uttrykk i tegningene (spesielt ansikter).* (23970f)

Other comments:

No I have not learned to draw at school. I’ve been doing that since I was two. (*Nei jeg har ikke lært å tegne på skolen. Det har jeg gjort siden jeg var to.*) (03145f)

I have learned a little at school, a little from television. Most of it is natural. (*Jeg har lært litt fra skolen, litt fra TV. Det meste er vel medfødt.*) (14550f)

The girl who made the drawings in Figure 19a, b, c, d, had this comment:

We have had a drawing teacher, but I have never had classes with her. I draw a lot on my own, and I have learned everything by myself. (*Vi har hatt en tegnelærer, men jeg har aldri hatt timer med henne. Jeg tegner mye på egen hånd, og har lært meg alt selv.*) (80376f)

Her drawing from Albertville in 1992, when she was eight, shows the bob-sled track. The bob is seen in profile. All the spectators are shown from the rear; they overlap the fence, as the Olympic rings overlap each other. The starting point is drawn in a smaller scale at the top of the page, which can indicate a diminution, and it looks as if the building has been given a reverse perspective. At the age of thirteen, she drew a portrait of Bjørn Dæhlie, a grand piano in a room, and two horses. In her drawing of the room she uses overlapping, diminution and linear perspective, although she seems to have had some problems with the picture on the wall. The boy who made the drawings in 20a, b, c, d, had this comment to the question: *Have you learned to draw at school?*

I have not really learned to draw at school, I taught myself that. (*Jeg har vel ikke lært å tegne på skolen, det har jeg lært av meg selv.*) (40673m).

The drawing he made at the age of eight shows a ski jumper with a mountain and the sun in the background. The flag and the Olympic flame are placed like a collage, without any overlapping. At the age of thirteen he made three drawings: one of a ski runner, one of a room with a bed and one with some comic figures. He has used overlapping and diminution in all his drawings. The room is seen in perspective, and it looks as if the roof had been taken off. The television set and the two carpets are seen from above, as in a plan drawing.

The Influence of Media

All the drawings sent in to the television contest in 1992 were necessarily made under the influence of various media, since none of the children were present in Albertville. They were inspired by television, and were surrounded by newspapers with images from the fantastic days in Albertville in 1992 when Norway won so many medals. In their free-topic drawings at the age of thirteen there is a clear influence of media, for example, Disney figures (04631f), Spice Girls (14060f) and comic strips.

First Reflections

My study shows a greatly declining interest in drawing with increasing age; the decline is much more dramatic for boys than for girls. It is not possible to come to any general conclusions about the development in the drawings, but it has been interesting to see how the juveniles' responses to the questionnaire have diverged from what their drawings reveal about spatial representation. These examples can illuminate how complex the field is, and how little the drawings have changed over the five years, apart from the detailing. My material does not give reason to believe that pictorial representation of space has a priority in *Forming* in the Norwegian compulsory school, even if my selection in this study is limited to those who were interested in drawing from the start. There are traces of central perspective having been taught (the drawings of long and narrow rooms), but the understanding of the principles of overlapping and diminution seems to be lacking. It is astonishing that nobody mentioned having learned anything about plan and elevation at school. But when juveniles say they have learned a lot about drawing at school, and there is a simultaneous lack of change in their drawings from the age of eight to the age of thirteen, it calls for a critical reflection. Have they been told

that they are having success when they draw as they did at the age of eight? Do the teachers ignore or refuse to teach overlapping and diminution? What about those juveniles who wanted to learn how to draw – why did they not experience any support from their teachers? Is the absence of instruction a result of the teacher’s lack of education, or could the absence of instruction be caused by the teacher’s fear of deciding what is excellent and what is not? Or is the absence of instruction caused by the teacher’s conceptions of a naturally unfolding “child art” as the objective?

The assumed absence of instruction in drawing might have different explanations. Before going into philosophy and attitudes to the teaching of drawing, I will examine some of the frameworks for teaching drawing in Norwegian compulsory school.

FRAMEWORK FOR DRAWING IN THE COMPULSORY SCHOOL

“Draw 92/97” shows that the interest in drawing declines dramatically after the age of twelve, and that some juveniles who wanted to learn about drawing turned to others than their teachers for assistance. Since art education is a complex field, it is not possible to point to any simple explanation for this. Undeveloped proficiency in drawing can be caused by lack of emphasis on drawing skills in the national curriculum or in an insufficient technical framework governed by economy and local conditions. It might also be caused by a lack of sufficient teacher qualifications. The pupil’s physical and psychological stage of development can also serve as an explanation, assuming that drawing and especially pictorial representation of space is too difficult to learn at the age of twelve. Some will also argue that it is natural for youngsters to reject drawing after the age of twelve. A possible explanation could also be that drawing is looked upon as an unimportant leisure-time activity and is therefore neglected and overlooked by teachers, parents and school administrations. A negative attitude to the subject can also be grounded in an absence of research with a following discussion on the justification for art education in compulsory school. It is also necessary to examine different conceptions of the philosophy of art education and especially how the different conceptions affect the teaching of drawing.

Curriculum and Technical Framework for *Forming*

The Norwegian National Curriculum for the period studied – Model Plan for the Compulsory School (*Mønsterplanen for grunnskolen*) (M-87) – has provided a good technical framework for the core subject *Forming*. In the annual report from *Organisation for Economic Co-operation and Development* (OECD) for 1998: *Education at a Glance*, it will be seen that Finland, Italy and Norway are the countries who give highest priority in their national curricula to art subjects for juveniles aged 12–14.⁹⁷ In OECD’s study, music is included, and since *Forming* has far more scheduled lessons than Music in Norway, it makes Norway an

⁹⁷ OECD. *Education at a Glance – OECD Indicators 1998*. Edited by Centre for Educational Research and Innovation. Indicators of Education Systems, Paris: OECD, 1998. p. 291.

international leader when it comes to intended instruction time for visual arts. In the Norwegian middle school (ages 10–13) the subject *Forming* has during the period studied had more scheduled time than mathematics and it has been the fourth largest core subject in the compulsory school.⁹⁸

The Model Plan *M-87* was a successor to the Model Plan for the Compulsory School (*Mønsterplanen for grunnskolen*) (*M-74*). They both were intended to be model plans, as the names indicate. *M-87* was a guideline; it contained no specific demand to follow up every detail in *Forming*, and it was based on a request to promote locally based activities. Both *M-74* and *M-87* encompassed the core subject *Forming*, which was a merge of the three subjects drawing, textiles and woodwork. This merging into *Forming* was tried out with the Experimental Plan of 1960 (*Forsøksplanen av 1960*), and was offered to the entire country by 1969. There is a tradition for teaching *Forming* in half classes, when the maximum class size is 28 pupils, but the half-class arrangement is based on local decision and national regulations.

With *M-87* the major goals for the core subject *Forming*: the training of skills and the stimulation of emotions and imagination, were looked upon as important.⁹⁹ In the concrete syllabus for Picture-forming (*Bildeforming*) in middle school (ages 10–13), the focus is on the pupil's use of his senses when making registrations and images from nature and the local environment, and a *clear representation* is emphasised. Drawing is implied in this formulation, as the pupils are to use various drawing implements.¹⁰⁰ I perceive that the intention of the formal curriculum was to develop the juvenile's ability for registration and representation in drawing. The formal curriculum did not impede instruction in drawing, and it can therefore not be seen as the explanation for the youngsters' low proficiency as found in "Draw 92/97". *M-87* included recommendations with a low directive power, allowing teachers to do almost whatever they wanted, with no risk of criticism. The teachers, of course, appreciated this freedom, but the same freedom opened up for great variations and differences when the teachers could disregard parts of the National

⁹⁸ Kirke- og undervisningsdepartementet. *Mønsterplanen for grunnskolen*. Oslo: Aschehoug, 1987. p. 88

⁹⁹ *Ibid.*, p. 263.

¹⁰⁰ *Ibid.*, p. 268.

Curriculum. This was most critical for subjects without textbooks, like *Forming*, which were completely dependent on the teacher's choices, competence, conceptions and attitudes.

The given economic frames for a great amount of materials such as textiles, wood and clay, have not always been the best at the local school level. However, the *M-87* curriculum did not call for creative work with all these materials, although there has been a broad tradition for using a wide variety of materials in experimental activity. Even with a limited budget the development of drawing skills should not have been affected, as drawing with pencil and paper is considered a "low-resource" activity compared to clay, textile and printing activities. Poor economy is consequently no acceptable explanation or excuse for the lack of achievement when it comes to the pupils' drawing skills. In a national survey by Carlsen/Streitlien in 1995, teachers in fifth and eighth grade were asked which activities the pupils practised in *Forming*. They replied that drawing and painting were often practised in *Forming*,¹⁰¹ which gives an indication of the teacher's operational curriculum. This shows that drawing is no neglected activity in *Forming*. It is not clear what positive outcome the juveniles have had from the drawing activity, and drawing could have been an activity for recreation. Despite a high level of drawing activity in school, the youngsters' drawing activity declines, which can indicate that drawing has not been implemented as their own medium of expression and communication.

Teacher's Education and Extrinsic Attitudes to *Forming*

In 1994 there were approximately 18,500 teachers who taught the core subject *Forming* in the Norwegian compulsory school.¹⁰² Their qualifications varied: some were classroom teachers, some were subject teachers (*Faglærer i Forming*), some were artists qualified to teach and some had no formal qualifications at all. Most of the teaching in *Forming* was carried out by classroom teachers, and with an education as a classroom teacher in Norway, formal qualifications to teach all core

¹⁰¹ Carlsen, Kari og Åse Streitlien. *Elev- og lærerperspektiv på formingsfaget. Resultater fra en spørreundersøkelse. Rapport 05/1995*. Notodden: Telemarksforskning, 1995. p. 63.

¹⁰² Statens Lærerkurs. "Lærerstoda i grunnskolen utdanning i einskilde fag m.v. pr. 1. januar 1994." Oslo: Statens Lærerkurs, 1994. p. 7.

subjects in the compulsory school are automatically obtained.¹⁰³ Almost all teacher qualifications are earned at teacher training colleges. The length of teacher training for classroom teachers has increased during the last twenty-five years from two years to four, but *Forming* has not been a core subject in classroom teacher training. In 1994, only 37.2% of the classroom teachers who taught *Forming* in primary- and middle school (ages 7–13) had had more than a half-year's training to qualify for the subject. In lower secondary school (ages 13–16) 75.5% of the teachers who taught the subject in 1994 had a half year or more of preparation to teach the subject.¹⁰⁴

The majority of students who enter the teacher training colleges have had no education in drawing beyond what they themselves had in lower secondary school (ages 13–16). Prior to entering teacher training college, each student has to qualify for college studies by taking languages, social science and mathematics in upper secondary school (ages 16–19). Art and design-related subjects have no status as core subjects in upper secondary school, and do not count in the qualifications for teacher training colleges, even if some schools offer art-related subjects as options. The length and the depth of teacher training is *not* satisfactory, taking into consideration that a classroom teacher is formally qualified to teach *Forming*, without having real competence to teach the subject. According to the National Curriculum for Classroom Teacher Training (*Allmennlærerutdanning. Studieplan*) from 1980, *Forming* was an optional subject, and the students could choose either Music, *Forming*, Gymnastics or Home Economics.¹⁰⁵ Students who did not choose *Forming* were offered a didactic course of fifteen lessons.¹⁰⁶ From 1992 to 1998, teacher training was guided by National Curriculum for Four-year Classroom Teacher Training (*Rammeplan for 4-årig Allmennlærerutdanning*), and also here *Forming* was an optional subject. The students had to choose one or two of the four subjects: *Forming*, Music, Gymnastics and Home Economics.¹⁰⁷ There

¹⁰³ Stortinget. "Lov om Lærerutdanning av 8 juni 1973 nr. 49 med endring sist ved lov av 10. juni 1977 nr. 77." Oslo: Grøndal & Søn, 1977. §13.

¹⁰⁴ Statens Lærerkurs, op. cit., p. 7.

¹⁰⁵ Kirke- og undervisningsdepartementet. *Allmennlærerutdanning. Studieplan*. Oslo: Universitetsforlaget, 1980. p. 14.

¹⁰⁶ *Ibid.*, p. 12.

¹⁰⁷ Kirke-, utdannings- og forskningsdepartementet. Lærerutdanningsrådet. *Rammeplan for 4-årig allmennlærerutdanning. Midlertidig godkjent av Kirke-, utdannings- og forskningsdepartementet 10. juli 1992*. Oslo: Kirke-, utdannings- og

were also other subjects that did not have satisfactory conditions in

teacher training,¹⁰⁸ but most of them had been core subjects throughout upper secondary school. In the new National Curriculum for teacher training from 1998 the situation is still not satisfactory, taking into consideration that *Art and Crafts (Kunst og håndverk)* continues to be the fourth largest core subject in compulsory school, although it is not a core subject in teacher training. Future teachers must choose between *Art and Crafts (Kunst og håndverk)* and Music,¹⁰⁹ and between Home economics and Gymnastics, which prevents a teacher from being able to choose both *Art and Crafts (Kunst og håndverk)* and Music, and thereby to specialise in aesthetic subjects. The priorities from *Culture in Our Time (Kultur i tiden)* and the new National Curriculum for compulsory school from 1997 have not been followed up in teacher training.

Pedagogy with some psychology is a core subject in all classroom teacher training in Norway. The developmental stages of children's drawing are a popular theme in the study of pedagogy. The large scale of pedagogic and psychological research: in Norway by Eng, Strømnes, Lysne, in the United States by Lowenfeld, Arnheim and Gardner, and in the United Kingdom by Read, makes theory with a psychological angle on children's drawings available in the field. Norwegian literature for teacher training in *Forming* covering the didactic part is insufficient, while there are a lot of "how-to-do-it" books on technique, materials and tools. And there is no serious and stable arena for a qualified discussion on teacher training in *Forming* that can be studied to reflect the struggling paradigms in the field. This discussion is taking place in the research journals in both the United Kingdom and the United States. Although a new paradigm has not yet found its form in either the United States¹¹⁰ or the United Kingdom,¹¹¹ the old paradigm of "child art" and self-expression seems to belong to the

forskningsdepartementet, 1994. p. 39.

¹⁰⁸ Norwegian and Religion have been compulsory in teacher training for classroom teachers. Mathematics first became compulsory in the curriculum of 1994.

¹⁰⁹ Kirke-, utdannings- og forskningsdepartementet. *Rammeplan og forskrift.*

Allmennlærerutdanning. Oslo: Kirke-, utdannings- og forskningsdepartementet, 1999. p. 173.

¹¹⁰ Parsons, Michael. "Integrated Curriculum and Our Paradigm of Cognition in the Arts." *Studies in Art Education* 39, no. 2 (1998): 103–116.

¹¹¹ Abbs, Peter. "The New Paradigm in British Arts Education." *Journal of Aesthetic Education* 30, no.1 (1996): 63–72.

past. In Norway there are also signs pointing to the decline of the free-expression movement, and there are different signs and episodes that might reflect this. Gads Forlag, the Danish publisher of Lowenfeld and

Brittain's translation of *Creative and Mental Growth*,¹¹² which has been the teacher training "bible" dealing with self-expression in Norway, decided in 1996 not to reprint the Danish translation which also served Norway and Sweden.¹¹³ However, the Lowenfeld tradition is kept alive in Norway with books like *Forming – What and Why (Forming – Hva og hvorfor)* from 1989,¹¹⁴ even if the most extreme self-expression attitude has declined. This book, made especially for teacher training in *Forming*, has been the only one available and has influenced teacher training in *Forming* all over Norway during the last ten years. Kjosavik's historic review of art education up to 1960 is expected to be available to students in 2000.¹¹⁵ Literature in English is rare in Norwegian teacher training.

According to the Norwegian Department of Teacher Training (*Lærerutdanningsrådet*),¹¹⁶ *Forming* heads the list of subjects showing what students accomplish in teacher training in different subjects.¹¹⁷ This can reflect very gifted students, very good teachers, very good literature, or it

¹¹² Lowenfeld, Viktor and W. Lambert Brittain. *Kreativitet og vækst*. København: Gjellerup, 1973.

Lowenfeld, Viktor and W. Lambert Brittain. *Creative and Mental Growth*. 5th ed. London: Macmillan, 1970.

¹¹³ Gjellerup Forlag was taken over by Gads Forlag in 1984. In that year 1213 copies of the book were sold in all of Scandinavia, but after that sales were on their way down. In 1995 and 1996 less than 300 copies were sold, after which it was decided not to reprint the Danish version.

¹¹⁴ Haabesland, Anny Å. og Ragnhild E. Vavik. *Forming – hva og hvorfor*. Stord: Stord Lærarhøgskule, 1989.

¹¹⁵ Kjosavik, Steinar. "Fra ferdighetsfag til forming. Utviklingen fra tegning, sløyd og håndarbeid til forming sett i et læreplanhistorisk perspektiv." Dr. Scient., Universitetet i Oslo, 1998.

¹¹⁶ Lærerutdanningsrådet. "Fagtilbud og fagvalg i lærerutdanningen. Fag og studieenheter i 4-årig allmennlærerutdanning (Kullet 1992–96). Studieenheter i naturfag som videreutdanning og fagstudier – tilbud og etterspørsel (studieårene 1994/95 og 1995/96) 2. delrapport." Oslo: Lærerutdanningsrådet, 1997. (Tabell 8)

Lærerutdanningsrådet. "Fagtilbud og fagvalg i lærerutdanningen. Fag og studieenheter i 4-årig allmennlærerutdanning (Kullet 1993–97). Studieenheter i naturfag som videreutdanning og fagstudier – tilbud og etterspørsel (studieårene 1996/97) 3. delrapport." Oslo: Lærerutdanningsrådet, 1998. (Tabell 8)

¹¹⁷ Lærerutdanningsrådet, 1997 and 1998 (Tabell 8)

Forming heads the list in 1996 as the subject with the best accomplishment (91.1%). The year after, in 1997, *Forming* (90.0%) came after Home Economics (90.9%) and Gymnastics (91.2%).

can reflect that it is very difficult to fail or get a low assessment in *Forming*. It is difficult to say what qualifies for a failing grade in *Forming*, except possibly not being present or not handing in required exercises. Can this reflect an attitude to the subject? Does *Forming* serve as a relief from the other theoretical subjects by providing a welcome break? And is this the reason why teacher training in *Forming* is not regarded as necessary? To look upon art in the compulsory school as a break from “heavier” subjects, is not only a Norwegian syndrome. Pettersson/Åsén found in their study of art education (*Bild*)¹¹⁸ in Sweden from 1989 that the position of the subject in compulsory school had developed to the point of becoming a break where the youngsters could relax and work without any demand for results as in other subjects.¹¹⁹

Schools have their inner life, but are still influenced by attitudes and values outside of school. Language and mathematics are commonly accepted as important subjects, and school headmasters and teacher colleagues often act in relation to leading ideologies in the organisation of everyday life in the compulsory school. Despite this, art and design are highly valued by small but influential groups in society. Politicians have a responsibility to speak the case for everyone – especially for the weak. During the period from 1974 to 1997, *Forming* was promoted by clever politicians and other press groups as a contrast to theory in school. This is very important for the framework of a subject like *Forming*, since it runs the risk of losing its position as the fourth largest core subject in compulsory education every time the National Curriculum is rewritten. Other Western countries, with the same self-expression movement in art education as the Norwegian, could see the subject minimised during the same period.¹²⁰ But how has this advocacy for *Forming* affected the attitude to the subject? Was *Forming* looked upon as an important subject on the local plan? Did parents and teacher colleagues in school look upon *Forming* as an important subject? Those of us who have experienced everyday life in middle school (ages 10–13) know the signs of not being

¹¹⁸ In Sweden art education is called *Bild*. It is separated from craft (*Sløyd*), which is divided into textiles and woodwork.

¹¹⁹ Pettersson, Sten och Gunnar Åsén. “Bildundervisningen och det pedagogiska rummet.” Högskolan för lärarutbildning i Stockholm. Institutionen för pedagogik, 1989. p. 268.

¹²⁰ Darras, Bernard. “Policy and Practice in French Art Education: An Analysis of Change.” *Arts Education Policy Review* 97, no. 4 (1996): 12–17. p. 15.

taken seriously. *Forming* was often placed in the late periods on Fridays on the pupil's program. Meetings and excursions stole time from the "unimportant" subject *Forming*. How could this happen? Does it reflect the attitude of the administration and teacher colleagues? Are parents generally interested in how their children are doing in *Forming*? Was *Forming* neglected and boycotted by teachers, parents and school administration? Are the teacher's of *Forming* capable of arguing in favour of the importance of their subject or do they lack the power to stand against the pressure with good arguments? Of course there are exceptional schools with a high art profile, but those are not the rule.

When the *Teacher's Union Norway (Lærerforbundet)* had an article in their journal in 1997 on how students chose specialisation in teacher training, they made a joke out of the students choosing *Forming* instead of English.¹²¹ The entire front cover was a picture of English textbooks soiled with clay by an art student. Obviously it was meant to show how the careless practitioner of *Forming* ignored language. The article was fortunately criticised by teachers of *Forming*,¹²² but it leaves us with some unanswered questions. How could a teachers union that organises teachers of *Forming* even conceive such an article, or even think of arranging such a cover picture? This article reflects a serious and questionable attitude inside the school itself. There might be rivalry between teachers of science and teachers of language, but the contempt evidenced through this cover picture is something special. And what happens when the students, the teacher trainers and the teachers of *Forming* are attacked? Who stands up and fights for *Forming*? Are the artists, designers or architects interested in the attitude schools spread to the future decision-makers, users, clients, consumers, and buyers of art? No, they are not often involved in the educational debate. Would the same have happened if Music were attacked? Would prominent professors of music education remain silent if classroom teachers were criticised for choosing Music in their teacher training? I strongly doubt that music professors would have neglected to respond if such an attack were made on the subject Music. The attitude to *Forming* came from somewhere; it did not just spring up.

¹²¹ Skjelbred, Liv. "Velger formgiving framfor engelsk." *Skolefokus* 96, no. 6 (1997): 2–6.

¹²² Paulsen, Anne og Laila Sve. "Baker for smed." *Skolefokus* 96, no. 11 (1997): 33.

INTRINSIC ATTITUDES TO DRAWING

As seen in the former chapter, the framework for *Forming* in compulsory school is rather good, and insufficient frameworks can consequently not be used as the main explanation for the lack of attainment in drawing. It is therefore relevant to examine intrinsic attitudes and philosophy guiding the teachers' conceptions of how to teach, or perhaps not to teach, drawing. The Norwegian teacher's attitudes to drawing have probably been influenced by the international discussions, especially through literature on art education translated into a Scandinavian language. Two of the most influential books in Norwegian teacher training are *Kreativitet og vækst*, based on the 5th edition of *Creative and Mental Growth* by Viktor Lowenfeld and Lambert Brittain, and the Norwegian translation of *The Story of Art (Verdenskunsten)* by E. H. Gombrich.

In the survey by Carlsen/Streitlien from 1995 the teachers claims that large groups was a hindrance for reaching the goal of the subject.¹²³ Carlsen/Streitlien uncover that there is a difference between what the teachers and the pupils interpret as the content in *Forming*, and claim that the main problem in giving assessments in *Forming* seems to be the low and sometimes lacking participation from the juveniles.¹²⁴ I doubt this is the main problem. It is more likely that the practise of *Forming* in the compulsory school suffers from a lack of discussion on the intentional level and consequently on how intentions and aims can be implemented in the formal-, perceived-, operational- and practised curriculum.

Grading Assessments in *Forming*

Norwegian pupils are given their first grade assessments in lower secondary school (ages 13–16), and there is an ongoing debate upon the value of assessments. But irrespective of liking grade assessments or not, the assessments can mirror attitudes. *The Norwegian Ministry of Education, Research and Church Affairs (KUF)* has statistics showing final assessments for each subject in lower secondary school. This is one way of getting an overview of what goes on in each subject, and the assumed purpose of the statistics is that it gives information about the

¹²³ Carlsen, Kari og Åse Streitlien. *Elev- og lærerperspektiv på formingsfaget*. p. 87.

¹²⁴ *Ibid.*, p. 82.

knowledge and skills the juveniles have acquired in each subject during their years in the compulsory school. From 1989 to 1997 the grade assessments in each subject were stable (see Figure 21), and it uncovers that the assessments in *Forming* stay far above average, with only gymnastics reaching a higher score than *Forming*.¹²⁵

There is nothing to indicate any low reliability in these assessment statistics, when considering that they are based on a well-functioning report system, and that all compulsory schools in Norway are included. But I strongly doubt the validity of these official statistics if the intention is to reflect the juvenile's outcome from *Forming*. The interesting part about these statistics is discussing what the assessments represent. They can hardly represent the juveniles' knowledge and skills in *Forming*, when the efforts of both *The Norwegian Ministry of Education, Research and Church Affairs (KUF)* and *The Norwegian Ministry of Cultural Affairs' (KD)* to strengthen the subject are taken into consideration. There might of course be a difference between what a pupil actually does, and the grade he or she receives from the teacher. The grade can reflect the teacher's interpretation of the curriculum, or the teacher's attitudes to *Forming*. In giving assessments, the teachers decide on the norms and standards for what is expected in the subject. Although unarticulated, the teacher's expectation for achievement leading to high scores is noticed by the pupils.

¹²⁵ Grunnskolerådet. "Evaluering i grunnskolen. Avgangsprøva 1989." Oslo, 1989. Kirke-, utdannings og forskningsdepartementet. Sekretariatet for grunnskolen. "Evaluering i grunnskolen – Avgangskarakterer 1991." Oslo: Kirke-, utdannings og forskningsdepartementet, 1992. Nasjonalt sekretariat for elevvurdering. "Avgangskarakterer i grunnskolen 1992. Obligatoriske fag. Landsoversikt." Oslo: Nasjonalt sekretariat for elevvurdering, 1992. Eksamenassekretariatet, Statens Utdanningskontor i Oslo og Akershus. "Avgangskarakterer i grunnskolen 1993. Obligatoriske fag." Oslo: Eksamenassekretariatet, 1994. Eksamenassekretariatet, Statens Utdanningskontor i Oslo og Akershus. "Avgangskarakterer i grunnskolen 1994." Oslo: Eksamenassekretariatet, 1994. Eksamenassekretariatet, Statens Utdanningskontor i Oslo og Akershus. "Avgangskarakterer i grunnskolen 1995." Oslo: Eksamenassekretariatet, 1995. Eksamenassekretariatet, Statens Utdanningskontor i Oslo og Akershus. "Avgangskarakterer i grunnskolen 1996." Oslo: Eksamenassekretariatet, 1996. Eksamenassekretariatet, Statens Utdanningskontor i Oslo og Akershus. "Avgangskarakterer i grunnskolen 1997." Oslo: Eksamenassekretariatet, 1997. Based on official documents for each year during the period 1989–1997. See bibliography.

Mean Assessments in Core Subjects in Lower Secondary School 1989-1997

Gymnastics	3,7
Forming	3,6
Home econ.	3,6
Music	3,6
Religion	3,5
Science	3,4
Social scienc	3,4
Norwegian	3,3
English	3,2
Mathematics	3,1

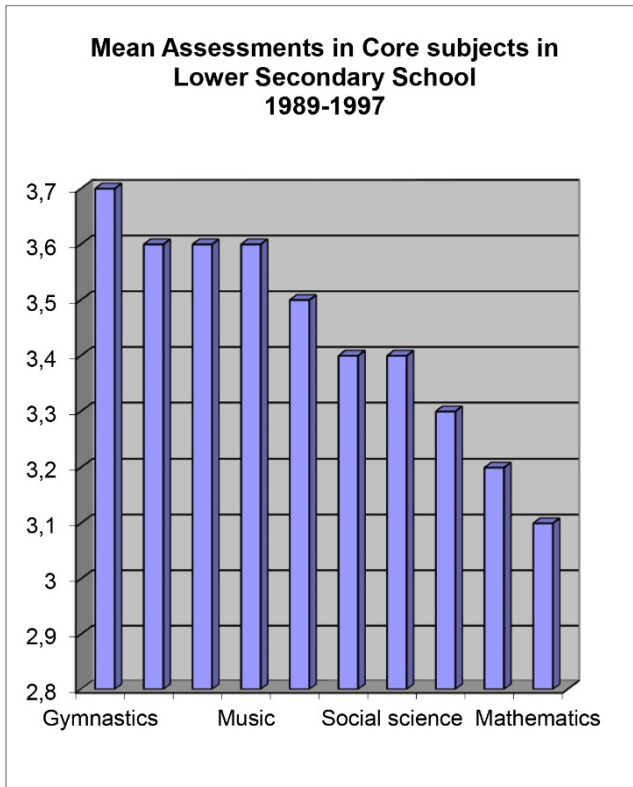
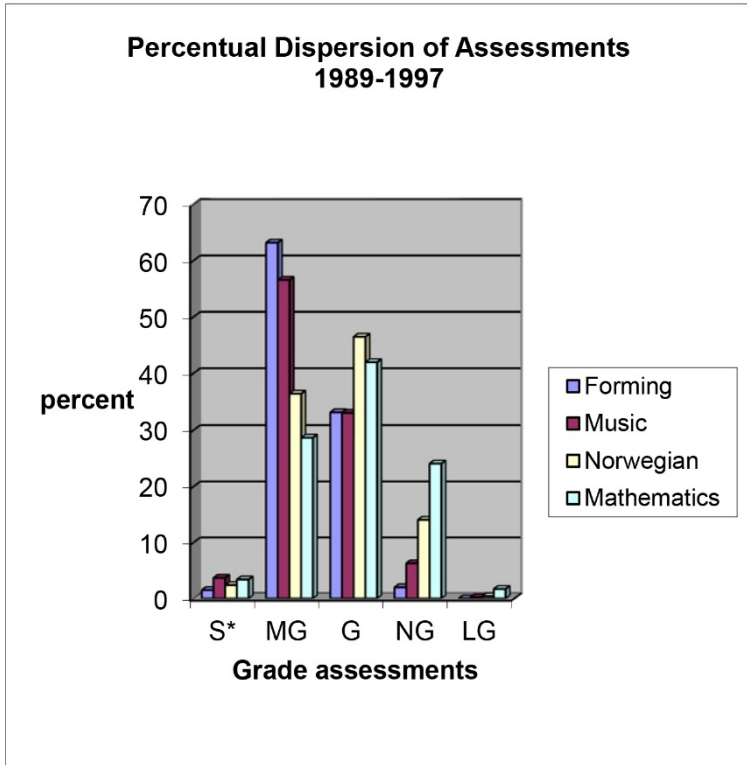


Figure 21 Mean assessments in all core subjects in lower secondary school (1989-1997. Based on official documents.

Percentual Dispersion of Assessments Four Core Subjects 1989-1997

	Forming	Music	Norwegian	Mathematics
S*	1,5	3,7	2,4	3,4
MG	63,2	56,6	36,4	28,7
G	33,2	33,1	46,5	42
NG	2	6,3	14,1	24,1
LG	0	0,2	0,4	1,7



* S is the highest grade assessment, and LG is the lowest

Figure 22 Assessments dispersion for four core subjects in lower secondary school (1989-1997). Based on official documents.

In order to obtain an insight into how the grade assessments were given in *each subject*, I rearranged the Ministry's data. These new statistics show a curve indicating the assessment dispersion for each subject (see Figure 22). This shows that *Forming* is the subject in which it is most unusual to get a top score and easiest to avoid the lowest score. Why is it so difficult to get a top score? Is it because the teachers refuse to set up criteria for what is excellent and desirable? And if so, how can pupils with ambitions in art and design understand what is expected if they wish to achieve a top score? And if the pupils experience that they get a rather good score without much effort, what signal does that give? It must be remembered that the assessments given in *Forming* count as much for further studies as those given in mathematics!

Given the fact that *Forming* is the subject in lower secondary school (ages 13–16) in which it is easiest to avoid the bottom and most difficult to reach the top, it is interesting to search for explanations. I doubt that Norwegian pupils have less ability than pupils in other countries to achieve a top score in art and design. It is more likely that the answer lies in the teacher's conceptions of the subject: its aim, intentions, philosophy and purpose in the compulsory school. Pettersson/ Åsén have in their study from 1989 reflected on why it has become so difficult to assess images made by children. One of the reasons was that the criteria for assessment were no longer visible; in reality they were often related to the teacher's impression of the pupil's personal conditions and personal expression.¹²⁶ Aims, intentions and purposes are given in the National Curriculum, but as Goodlad emphasises, the practised curriculum is not the same as the formal curriculum.¹²⁷

When *Forming* was introduced, the expressive "child art" movement had a great influence in Norway. When the three subjects were merged into one, two main traditions met – the craftsman movement and the "child art" movement. Newly educated teachers met instructors who had been

¹²⁶ Pettersson, Sten and Gunnar Åsén. "Bildundervisningen och det pedagogiska rummet." p. 268.

¹²⁷ Goodlad, John I., M. Frances Klein and Kenneth A. Tye. "The Domains of Curriculum and Their Study." In *Curriculum Inquiry: The Study of Curriculum Practice*, edited by Thomas H. Quinn and Michael Hennelly, 43–76. New York: McGraw-Hill Book Company, 1979. pp. 60–64.

teaching for many years in a proud craftsmanship tradition within drawing, textiles or woodwork. The new teachers could not possibly reach the same level of qualification considering that they had to cover three subjects instead of one, as before. The split between the old and the newly educated teachers, and the National Curriculum moving away from craftsmanship to self-expression, led to conflicts in Norway. The conflict was kept alive by the three teacher training colleges of *Forming* that had different traditions to take care of.¹²⁸ According to Kjosavik, the Teacher training college for Forming at Notodden (*Statens lærerhøgskole i forming, Notodden*) (SLFN) had more influence than the other two when the curriculum for the new subject *Forming* was developed.¹²⁹ Some teachers educated in the craftsmanship tradition in the late fifties are still teaching in Norwegian schools, and some of them have never left their craftsmanship tradition. Many schools chose separation as a solution to the conflicting concepts merged in *Forming*, and organised schedules in drawing, textiles and woodwork so as to avoid conflicts. This has been practised both at teacher training college and in the compulsory school, and according to the youngsters' comments (03221f, 29500f), *Forming* was organised in three parts in some schools.

It is not difficult to see the problems in giving the pupils assessments in *Forming* where strong craftsman tradition meets the expressive "child art" movement. The craftsman tradition has a focus on the product, while the self-expression tradition focuses on personal development. How can a normal teacher without a specialist psychological education even dare to assess personal development? To assess a personality without being an educated specialist is indeed a dilettante act. The self-expression movement turned the focus away from the product to personality. It is almost the same as saying that in the subject Norwegian, also an aesthetic subject in school, one should not evaluate writing, but the intentions and the personalities behind the writing. In the same way that a written product reflects an ability to use language for a purpose, a product of art

¹²⁸ The former Teacher training college for Forming in Oslo (*Statens lærerhøgskole i forming, Oslo – SLFO*) kept the textile tradition alive. The former Teacher training college for Forming at Blaker (*Statens lærerhøgskole i forming, Blaker – SLFB*) kept the woodwork tradition alive, while the former Teacher training college for Forming at Notodden (*Statens lærerhøgskole i forming, Notodden – SLFN*) had traditions within both drawing and woodwork.

¹²⁹ Kjosavik, Steinar. "Fra ferdighetsfag til forming." p. 238.

and design shows the ability to use combinations of form, colour, composition and material for a purpose. The battle between these two traditions, not always articulated, might explain the strange way of giving assessments in *Forming*. Giving a very large group of pupils a middle high score might be the teacher's strategy to avoid complaints from pupils, parents and school administrators. But this is certainly not an offensive strategy to use in order to strengthen an interest in art, design and visual communication in society; it is rather just the opposite. And making it so difficult to get a top score is certainly not fair to pupils with an interest in art and design. Is it because the teachers cannot agree on or formulate the criteria for what is good and what is not?

Plan, Elevation and Perspective

"Draw 92/97" showed that eight-year-old children used mainly frontal and profile elevations in their drawings. A simultaneous use of plan and elevation appeared frequently, while overlapping was rare. The eight-year-old seemed to avoid hiding anything of importance behind something else. These drawings seemed to show what the child knew about the object or situation depicted and were not focused on showing what could be seen in the situation, since plan and elevation could not be seen at the same time. According to Gert Z. Nordström, the Italian educator Corrado Ricci initiated a new way of looking at children's drawings in 1887, by introducing two different notions of children's drawings: what the child knew contra what the child saw.¹³⁰ But the concept of representing an idea versus that of representing an appearance in drawing was discussed much earlier. In *The Republic*, Plato discussed how the world could be depicted in painting, using the representation of a bed as an example. He discussed if there was any difference in the bed itself when seen from different angles, or if the bed merely looked different when seen from different viewpoints. Plato asked:

¹³⁰ Nordström, Gert Z. "Det försummade bildspråket." In *Tidsbilder. Perspektiv på skola och bildskapande under 150 år*, edited by Ulla Lind, Kjersti Hasselberg and Britt-Marie Kühlhorn, 40–57. Stockholm: Utbildningsradion, 1992. p. 48.

*Does painting aim at reproducing any actual object as it is, or the appearance of it as it looks? In other words, is it a representation of the truth or of a semblance?*¹³¹

Plato was an opponent to making paintings that resembled the visible world. If a table was represented the way it appeared, the table could be perceived as not rectangular, because the furthestmost edge of the table seemed shorter than the foremost edge. In reality, the edges were of equal length, and a painting should show this equality, otherwise the painting would be false. According to Plato, a representation of a semblance was false while a representation of the idea of what an object really was, represented the truth about the object. According to Marianne Marcussen, Plato advocated the principle of true length and angles such as the Egyptians used in their painting style for more than 3000 years, disagreeing with the way the Greek paintings were developing towards a representation of the visible world during his lifetime.¹³² The simultaneous frontal and profile representation of a human body was used in Egyptian paintings for about three thousand years. The Egyptian *canon* was based on philosophical values, where the figure was represented from its most distinctive side. A table filled with food was represented with a simultaneous use of plan and elevation: the table was represented frontally, while the top of the table was represented as an uplifted plan. The Egyptian *canon* was based upon the principle of representing the world as it was, not as it was seen. According to Marianne Markussen, there have been two such *canon* periods that widely influenced our Western art tradition when it comes to spatial representation: the Egyptian, that lasted for 3000 years, and the Renaissance from 1425 to 1900.¹³³

The Renaissance *canon* was based on the principle of representation of the visible world, and the invention of linear perspective overshadowed other ways of representation in painting. The concept of representing the visible world as it appears has been understood as a method of copying the visible world, and the laws of perspective from the Renaissance were

¹³¹ Plato. "A Copy Theory of Representation" In *The Philosophy of the Visual Arts*, edited by Philip Alperson, 63–71. Oxford: Oxford University Press, 1992. pp. 64–65. From Plato, *The Republic of Plato*, trans. Francis M Cornford. London: Oxford University Press, 1941, Book X, pp. 321–40.

¹³² Marcussen, Marianne. *Perspektiv – om rumopfattning og rumjengivelse*. København: NNF, 1987. pp. 99–100.

¹³³ *Ibid.*, p. 93.

considered to be the most sophisticated way of making such a representation. Gombrich attacked the copy theory with this crucial question:

*Why is it that different ages and different nations have represented the visible world in such different ways?*¹³⁴

Different cultures have developed different styles, what Gombrich calls the “riddle of style”. The style is learned and developed through adjustment by “trial and error”¹³⁵ and “making and matching”.¹³⁶ Gombrich attacks the “myth of the innocent eye”, which relates to the idea that seeing is a matter of passively registering raw visual data.¹³⁷ Painters have learned the tricks of their culture and masters, and in different periods qualitative leaps were made and new tricks developed. The Greeks used foreshortening while in the Renaissance foreshortening was given a mathematical explanation, thereby developing the theory of perspective as a tool for representing the visible world. These different styles could not have appeared if it was just a matter of copying. If the copy theory was right, there should be no such differences, and a representation of a face would have looked the same in every style period we know.

Stuart MacDonald has described the rise and fall of perspective in art education in his book *History and Philosophy of Art Education* from 1970. According to MacDonald, perspective drawing was at its peak in British art education from 1860 to 1901, when art and science were still in the same department. After the final separation of art and science education at the turn of the century, perspective drawing in education declined, and today it lies moribund.¹³⁸ MacDonald emphasises that architectural education has a history different from that of art education. Architectural education has been led by utility when using different concepts of representation like isometry and axonometry in addition to plan, elevation and linear perspective. According to Pérez-Gómez, axonometric projection was introduced in engineering schools in the late

¹³⁴ Gombrich, E. H. *Art and Illusion*. p. 3.

¹³⁵ *Ibid.*, p. 76.

¹³⁶ *Ibid.*, p. 24.

¹³⁷ *Ibid.*, p. 251.

¹³⁸ MacDonald, Stuart. *History and Philosophy of Art Education*. New York: American Elsevier Press, 1970. p. 53.

nineteenth century for its usefulness as an accurate technical tool.¹³⁹ Axonometric projection contains true length but not true angles, and as a tool it is a merge of the two concepts of the visible and the known world. Pérez-Gómez has in his book *The Perspective Hinge* from 1997 made a valuable contribution to the development and use of perspective in architectural representations. The different discussions on whether linear perspective can give a true copy of the visible world has of course appeared in both the art field and the architectural field, even if there are great differences concerning accuracy and purpose.

The art world has influenced on the teaching of drawing in compulsory school, even if the more technical and utilitarian purposes influenced the teaching of drawing at the turn of the century. Lawrence Wright has a chapter in his book *Perspective in Perspective* from 1983, called “Perspective out of Favour”, in which he describes how the development of cubism renewed the questions of Plato, but also how cubist paintings built upon the perspective tradition.¹⁴⁰ The artists’ revolt against linear perspective encompassed both protests against the accepted way of representing the visible world, and an interest in children’s drawings and Eastern painting tradition. Why should there be *one* way of making visual representations of space, impressions and experiences? And was linear perspective superior to other spatial representations?

The discussion on linear perspective has philosophical aspects, and the main question is whether linear perspective has a unique position compared to other ways of representing the visible world. In 1927 Erwin Panofsky attacked the notion of linear perspective as a unique valid method for representing visual reality, and one of his main objections was that we see through two eyes and not one eye, as linear perspective presupposed.¹⁴¹ He also argued for the curvature of the optical image, which Kepler also endorsed in that he admitted the possibility of the objectively straight trajectory of a meteor being subjectively perceived as a curve. According to Panofsky, Kepler recognised that he had overlooked or even

¹³⁹ Pérez-Gómez, Alberto and Louise Pelletier. *Architectural Representation and the Perspective Hinge*. London: The MIT Press, 1997. p. 314.

¹⁴⁰ Wright, Lawrence. *Perspective in Perspective*. London: Routledge & Kegan Paul, 1983. p. 308.

¹⁴¹ Panofsky, Erwin. *Perspective as Symbolic Form*. Translated by Christopher S. Wood. New York: Zone Books, 1991. p. 29.

denied these illusory curves only because he had been schooled in linear perspective.¹⁴² Herbert Read also discussed the difference between reality and pictorial representations, and he wrote that scientific perspective was a construction of the intellect, and not a direct perception.¹⁴³ In *The Art of Sculpture* from 1956, Read wrote that the theory of perspective was just one way of describing space and it had no absolute validity.¹⁴⁴ In *Languages of Art*, from 1969, Nelson Goodman argues for the difference between a picture and reality.¹⁴⁵ Magritte's pipe can stand as a comment to this debate. And the debate continues. Gombrich has in a way defended perspective as:

...the most important trick in the armoury of illusionistic art, the trick of perspective.¹⁴⁶

For making such statements Gombrich was attacked by Norman Turner in his article: "Some questions about E. H. Gombrich on perspective".¹⁴⁷ The debate is interesting, but at the same time it is not, if one takes a pragmatic point of view. Why need there be *one way* of painting and drawing which is superior to others? And to say that perspective is the most important trick of illusionistic art does not mean that it is the only way. And the fact that there is more than one way of representing space does not mean that it is wrong to teach different conceptions of it, including perspective. Perspective seems to be out of fashion in art education, but the technology that serves the computer entertainment industry, and the pilot simulators which youngsters are so fascinated by, build upon the principles of linear perspective to give an illusion of space. Linear perspective does not seem to be out of fashion for youngsters and society.

While the material in "Draw 92/97" showed that the drawings of the eight-year-old appeared to represent the world as it was known with

¹⁴² *Ibid.*, p. 34.

¹⁴³ Read, Herbert. *Art Now: An Introduction to the Theory of Modern Painting and Sculpture*. London: Faber & Faber, 1948. p. 91.

¹⁴⁴ Read, Herbert. *The Art of Sculpture, Bollingen Series XXXV 3*. Princeton, N.J.: Princeton University Press, 1956.

¹⁴⁵ Goodman, Nelson. *Languages of Art – an Approach to a Theory of Symbols*. London: Oxford University Press, 1969. p. 19.

¹⁴⁶ Gombrich, E. H. *Art and Illusion. A Study in the Psychology of Pictorial Representation*. 5th ed. London: Phaidon, 1992. p. 205.

¹⁴⁷ Turner, Norman. "Some Questions about E. H. Gombrich on Perspective." *Journal of Aesthetics and Art Criticism* 50, no. 2 (1992): 139–150.

simultaneous plan and elevation and almost no overlapping, most of the drawings of the thirteen-year-old seemed to aim at representing the world as it was seen. The drawings made by thirteen-year-old youngsters are characterised by an increasing use of overlapping and diminution even though frontal and profile elevations are still used. A simultaneous use of plan and elevation appeared, but in a context where the intention seemed to be to draw what was seen, the appearance. The youngsters obviously seemed to be struggling to draw what they could see. Reaching the age of thirteen was also combined with a dramatic decline in drawing interest. There can be a connection between the juveniles' feeling of not being able to draw the way they want to and this declining interest. Some of the youngsters who seemed to have learned about perspective at school were making drawings of long narrow rooms with a window at the end and some furniture glued up against the wall. It is possible that the teaching of central perspective has been pure technique, without combining it with the understanding of overlapping and diminution. Perhaps the youngsters had just developed new schemata, but unless there is an understanding it is difficult to transfer this to other motifs.

Assuming that Gombrich is right when he says that pictures come from pictures: How then have the juveniles who participated in "Draw 92/97" been encultured or taught about drawing concepts in school? There is no trace in the drawings from "Draw 92/97" of a further development of the concept of drawing the world as it is known, as in the Egyptian culture. On the other hand, there are clear traces showing the juveniles' struggle to draw the world the way it appears, which they were asked to do in the follow-up study in 1997. But since "Draw 92/97" showed that some of the youngsters turned to parents, uncles and siblings, it might indicate that they did not experience any helpful instruction at school. A disregard for teaching drawing was obviously practised by many teachers in the middle school (ages 10–13). But is there a conscious ideology behind this attitude? Have teachers of *Forming* decided not to teach any concept of representation because there is no agreement on just the one right answer? The British school system also seems to have problems with the teaching or not teaching of perspective drawing. In an article in the British research journal of art and design education, Angela Anning describes the "tyranny of visual representation" that dominates art lessons in the United Kingdom, and at the same time the teachers' negligence to teach. She says about the children in school:

They are expected to learn the Western European conventions of base-line, occlusion, perspective and a single viewpoint – though nobody teaches them how. So by trial and error, rarely via direct instruction, children struggle to master the technical challenges of representing space, scale and perspective. Those who fail to master the technicalities assume from a depressingly early age that they are “no good at drawing” and quickly abandon it as an alternative mode of representation to speech and writing.¹⁴⁸

To jump between the two conceptions of representation – drawing the world the way it is known, and drawing the way the world appears through the eye – does not seem to be such a problem in the design world as it seems to be in the field of art. Designers and architects use plan and elevations in some drawings and perspective in others, because the type of representation is chosen to fit the intentions of the drawing. The architect’s drawings intended for the authorities are different from those personal sketches made in the beginning of a project. The drawings made for the carpenter are different from those made for the client during the planning process, or from presentation drawings. Sometimes the drawing explains how space *is* by using plan and elevation, in another situation the purpose is to make a drawing of what a room *looks* like. The findings from “Draw 92/97” might reflect that when teachers are mainly influenced by art and pedagogy, they might have another attitude to right and wrong when it comes to spatial representations than that of designers. Could it be that when the school-art world was confronted with the fact that there was no longer one superior way of representing the world, then there was nothing to teach? It might be that the art world and the school-art world have adopted a defeatist attitude, when confronted with the fact that there is no universal way of representing the world. Instead of teaching several concepts of representation, and making the youngsters reflect upon the benefits and disadvantages of the different concepts of spatial representation, the teachers seemed to remain silent.

Another explanation of the youngsters’ declining interest in drawing might be that teachers have chosen a strategy of non-teaching and non-interference to conserve the children’s charming pre-school way of

¹⁴⁸ Anning, Angela. “Learning to Draw and Drawing to Learn.” *Journal of Art & Design Education* 18, no. 2 (1999): 163–172. p. 170.

drawing simultaneous plan and elevation. This strategy might have had the intention of keeping the juveniles enthusiasm for drawing from pre-school days alive, but the findings in “Draw 92/97” indicate the opposite. It does not seem as if the youngsters were comfortable with a pre-school drawing style at the age of twelve, even if their art teacher liked their drawings ever so much. Such a strategy is a way of keeping the children away from knowledge and does not promote the joy of mastery, even if some teachers love to think so.

Lowenfeld was fully aware of the frustration, disappointment and even shock the juveniles could experience at the ages of eleven to thirteen when they became aware of their childish way of drawing. In *Creative and Mental Growth* he wrote:

*As one of the consequences of this shock the child stops his creative work. He “can’t draw anything” because of his sudden critical awareness realises the “inefficient” childish approach. The drawing expression seems “childish” and “ridiculous” because of the sudden awakening of an adult attitude.*¹⁴⁹

And Lowenfeld had a strategy to shield the juvenile from this shock when he was confronted with his childlike way of drawing as he compared his drawings with images from adults who are a part of the surrounding culture. But is it possible to protect a person from its own culture and try to unfold the natural personality through drawing as an educational principle? And, is it possible or desirable to protect a person from its culture without filling in some substitute culture? Lowenfeld and Brittain are critical to teaching perspective to juveniles from the ages of twelve to fourteen. In the fifth edition of *Creative and Mental Growth* they say:

*The representation of depth must be discovered by the student. To take this discovery from him by “explaining” perspective would deprive him of an important experience.*¹⁵⁰

¹⁴⁹ Lowenfeld, Viktor. *Creative and Mental Growth*. 3d ed. New York: Macmillan, 1957. p. 233

¹⁵⁰ Lowenfeld, Viktor and W. Lambert Brittain. *Creative and Mental Growth*. 5th ed. London: Macmillan, 1970. p. 262.

But even though it sounds as if Lowenfeld and Brittain regard perspective as unimportant, their questioning strategy about diminution of trees and representation of space in the children's drawings uncovers that they mean that diminution is important knowledge *if* the child discovers it by himself.¹⁵¹ It seems as if the strategy of non-intervention is one of Lowenfeld's main issues. If the argument against the teaching of perspective in compulsory school is that perspective has no relationship to the world they experience, it is too simple. Perspective drawing with overlapping and diminution is perhaps the closest cultural conception developed to represent the visible world as it is seen and experienced every day through our eyes, and also as seen in photographs and on television. This does not mean that the images are a copy of the world: all images are distortions, as they are two-dimensional and not three-dimensional. The concept of plan and elevation which children use at the pre-school age is more abstract than perspective drawing. But is this abstraction of plan and elevation preferable to a concept of drawing with overlapping, diminution and, later, linear perspective? It does not benefit the child's development to prefer and protect one conception of representing space to another by hiding the cultural conventions and neglecting to teach the cultural concepts of drawing to the juveniles. Just as Helga Eng did not take any special notice in her observations of the cultural influence on the drawings of Margaret, Lowenfeld could not see the consequences of his well-intentioned concept of teaching without teaching. His concept of art education was a reaction to the existing paradigm of teaching right and wrong in art. In the same way, many teachers of today might see their own teaching, or not teaching, through the glasses of self-expression and the "child art" paradigm, which they themselves were taught at teacher training college. The question is whether the strategy of letting the children and youngsters discover everything about spatial representation on their own is a strategy which makes them abandon drawing instead of continuing.

Falling in Love with the Pre-school Drawing Style

And, indeed, it is difficult to know how to teach children to draw, when most children enter school with sufficient skills to use drawing as a

¹⁵¹ Ibid., p. 262.

medium for communication, expression and pleasure. This enthusiasm for drawing is admirable, and as adults we are often overwhelmed by the children's capacity for making drawings with original solutions. And how can anybody avoid falling in love with those pre-school drawings? Even the greatest painter of the 1900s, Picasso, was so fascinated by children's drawings that he claimed:

*When I was the age of these children I could draw like Raphael: it took me many years to learn how to draw like these children.*¹⁵²

In connection with discussions on drawing in art education, these words by Picasso have been quoted again and again by, among others, David Pariser, Howard Gardner, Diana Korzenik, Dore Aston, Roland Penrose and Herbert Read, but none of them in the same way.¹⁵³ On looking for its origin, I found that it was Herbert Read who heard Picasso say those famous words when guiding him through an exhibition of British children's drawings in Paris, and Read wrote about this episode in *The Times* in 1956. The quoted statement from Picasso has probably strengthened the omission of teaching in art education. Why teach a child to draw differently from what he does when he enters school, when even the greatest master of our century aims to draw like a child? It was easy for Picasso to make such a statement; he already had his classic, academic art education, and was free to choose any style. He was even able to create a new style. He could choose the style of the child, but a child could *not* choose the style of Picasso in his "Blue Period". This difference is relevant when discussing the teacher's conception of teaching drawing.

¹⁵² Read, Herbert. "To the Editor of the Times." *The Times*, 26 October 1956.

¹⁵³ Pariser, David. "Children of Kronos: What Two Artists and Two Cultures Did With Their Childhood Art." *Journal of Aesthetic Education* 33, no. 1 (1999): 62–72. p. 68.

Gardner, Howard. *Artful Scribbles. The Significance of Children's Drawings*. New York: Basic Books, 1980. p. 141.

Korzenik, Diana. "The Changing Concept of Artistic Giftedness." In *The Development of Artistically Gifted Children*, edited by Claire Colomb, 1–31. Mahwah, N.J.: Lawrence Erlbaum, 1995. p. 13.

Ashton, Dore, ed. *Picasso on Art. A selection of Views*. New York: Da Capo Press, 1972. p. 104.

Penrose, Roland. *Picasso: His Life and Work*. London: Victor Gollancz, 1958. p. 275.

An exhibition from 1995 called *The Innocent Eye: Children's Art and the Modernist Artist*, indicates that the topic is still fascinating. The American Professor Jonathan Fineberg describes the phenomena shown at the exhibition like this:

*The vanguard of the new century sought in children's art a means of peeling back the layers of an overcultivated, fin-de-siècle Europe to discover what lay buried beneath that elaborately rendered facade.*¹⁵⁴

The art world has had an important influence on what happened to the debate about the teaching of drawing in art academies, art colleges, teacher training and in compulsory education. The conception of how to represent the visible world in painting by using the invention of linear perspective from the Renaissance was attacked by the modernist painters. The painters were fascinated by, among other things, the purity in drawings by children and the painting style from eastern countries like Japan.¹⁵⁵ The modernist opposed the concept of depicting the visible world as it appeared, and contributed to the development of new styles, e.g. expressionism, and cubism. Lowenfeld's theory was influenced by expressionism, and later when the art world began to accept pop-art, art educators started to accept children's use of styles from mass media in their drawings.¹⁵⁶

Anna Lena Lindberg has with her doctoral thesis: *The Dilemma of Art Education (Konstpedagogikens Dilemma. Historiska rötter och moderna strategier)* from 1988 made a very important contribution to our knowledge of how international art education has influenced the Scandinavian, even though her main focus is art understanding. She describes two conflicting traditions, *the lecturing attitude* and *the charismatic attitude*,¹⁵⁷ and their historical background in Germany, Britain and Sweden. In the first tradition, which she calls *the lecturing attitude*,

¹⁵⁴ Fineberg, Jonathan. "The Innocent Eye." *Art News*, April (1995): 118–25. p. 119.

¹⁵⁵ Berger, Klaus. *Japonisme in Western Painting, from Whistler to Matisse*. Translated by David Britt. Cambridge: Cambridge University Press, 1993.

¹⁵⁶ Korzenik, Diana. "The Changing Concept of Artistic Giftedness." In *The Development of Artistically Gifted Children*, edited by Claire Colomb, 1–31. Mahwah, N.J.: Lawrence Erlbaum, 1995. p. 4.

¹⁵⁷ Lindberg, Anna Lena. *Konstpedagogikens dilemma – historiska rötter och moderna strategier*. Lund: Lund University Press, 1988. p. 346.

knowledge about art and design is disseminated from those who know about quality to those who are uneducated. According to Lindberg, Ellen Key supported this attitude.¹⁵⁸ She characterises the other tradition as *the charismatic attitude*, where the teacher does not act as a specialist who knows, but as one who elicits the latent and personal interpretation entailed by everybody when regarding a piece of art. Lindberg follows *the charismatic attitude* back to a romantic ideology where the experience of art has to do with feelings, not reason.¹⁵⁹ The charismatic attitude follows the heritage from Rousseau, Cizek and Lowenfeld where notions like “child art”, self-expression and free-expression were frequently used.

But the question is whether or not there is anything to learn in art. Lindberg reveals a practice with contradictions when she describes a situation from an art gallery in the south of Sweden, Malmö Konsthall, in 1983, where a controversial art exhibition of Gotthard Graubner’s art meets protests among the local inhabitants. When a representative of the art world, the gallery director Eje Högestätt, meets the protests from the public, he shifts between the *charismatic* and the *lecturing attitude*.¹⁶⁰ He seems to shift between these attitudes when it suits *his* purpose. But how on earth do specialists on art become experts, if there is nothing to learn in art, as proclaimed by followers of the charismatic attitude? This example illuminates a strange attitude to education, learning and teaching. If education is the filling up of an “empty bucket” with what is right and what is wrong, it is easy to turn our backs on education. But the empty bucket philosophy is vulgar. And it is primitive to fall into the opposite attitude, which Anna Lena Lindberg calls the charismatic attitude, where there is nothing to learn. Her example from the museum in the south of Sweden shows that the charismatic attitude does not function as a principal attitude to art and education. It reminds me of a positivistic attitude searching for universal rules, and when there is no universally acceptable answer, there is no answer at all. Since there is no universal interpretation of art, should we accept the idea that there is nothing to learn? Is the art education field really so black and white? Learning about art does not have to be the same as learning universal rules about art. Learning about our visual culture with form, colour and composition in order to be able to

¹⁵⁸ Ibid., p. 15.

¹⁵⁹ Ibid., p. 346.

¹⁶⁰ Ibid., pp. 13–16.

understand, appreciate and be able to make one's own pictures does not mean learning *one* style. It is more interesting to discuss how a person can build up a capacity to make independent reflections on art, their own choices and pictures.

The findings of “Draw 92/97” and the assessments study indicate that teachers are afraid to determine what is excellent and what is not. Such an attitude might fit the philosophy of Lowenfeld, and has similarities to the charismatic concept of Anna Lena Lindberg. Both these conceptions have their roots in a romantic notion, that there is nothing to be learned. But the educational concept of Gombrich is quite different from that of Lowenfeld. Gombrich does not advocate universal solutions either in art or in art education.¹⁶¹ Gombrich talks about different cultures having different concepts of pictorial representations, and how these are developed and changed throughout history. By learning the visual conventions of the culture, the child is encultured into the visual society by “Making and matching”. There are no clear indications that the majority of the participants in “Draw 92/97” have been encultured into the classical conventions of Western drawing in school. Surprisingly many of those juveniles who have taken up the concept of representing the visible world by overlapping and diminution have learned it from siblings, parents or uncles. This can be interpreted to mean that the teachers in middle school (ages 10–13) practice the conception of Lowenfeld in their everyday drawing instruction, or more accurately – the concept of not teaching drawing. It is not easy to know if this is done by choice, incompetence, or by just following instructions from teacher training college.

Nature, Culture and Artistry Lost

“Draw 92/97” shows a dramatic decline of interest in drawing from the age of eight to the age of thirteen, which is no surprise to art teachers who have practised in the field. Helga Eng observed how Margaret's interest in drawing reached a climax at the age of eight, and she continues:

It is a well-known fact that most children give up spontaneous drawing once they are well into school age. There is, however,

¹⁶¹ Gombrich E. H. *Meditations on a Hobby Horse and other Essays on the Theory of Art*. 4th ed. 1963 ed. London: Phaidon, 1985. p. 110.

*little agreement among drawing psychologists either as to the age at which this stagnation generally sets in, or the cause of it.*¹⁶²

Eng disagrees with Cyril Burt when he claims that the declining interest in drawing is natural: She points to the cultivation of drawing in modern schools, and thereby contradicts herself by promoting the education in drawing to which she is opposed. She says:

*This cannot be the case, however, since children in modern schools, where free drawing is cultivated, continue their spontaneous drawing during this period.*¹⁶³

Franz Cizek ran such a modern school in Vienna, and his ideas on “child art” and examples of “child art” have been documented by Wilhelm Viola in *Child Art and Franz Cizek* from 1936 and *Child Art* from 1944. His school was founded upon the ideas that Rousseau described in *Émile* in 1763, where the child should not be taught to copy other men’s work, but be inspired by observation of nature.¹⁶⁴ Peter Smith has made comments on how the drawings from children in Cizek’s school were interpreted as free drawings and “child art”, and he has questioned how free they really were.¹⁶⁵ Gombrich grew up in Vienna at that time, and he has a memory from his own practising of drawing, which according to himself inspired him to write *Art and Illusion*. Gombrich writes:

*In contrast to an elder sister who was and is very imaginative and produced very imaginative drawings much admired by my parents, I had taken to copying pictures of animals in a favourite animal book. I was quite proud of my efforts and somewhat mortified when I discovered from the tone of voice in which these drawings were duly “praised” that my parents disapproved of copying. Those were the days of Cizek in Vienna... As you see, I never got over this grievance.*¹⁶⁶

¹⁶² Eng, Helga. *The Psychology of Child and Youth Drawing: From the Ninth to the Twenty-fourth Year*. London: Routledge & Kegan Paul, 1957. p. 1.

¹⁶³ *Ibid.*, p. 1.

¹⁶⁴ Rousseau, Jean-Jacques. *Émile*. London: Everyman J. M. Dent, 1993. p. 128.

¹⁶⁵ Smith, Peter. *The History of American Art Education. Learning About Art in American Schools, Contributions to the Study of Education*. London: Greenwood Press, 1996. pp. 59-78.

¹⁶⁶ Gombrich, E. H. *Ideals and Idols: Essays on Values in History and in Art*. Oxford: Phaidon, 1979. p. 175.

Jessica Davis has presented her findings on how children's drawings follow a U-shaped curve in "The 'U' and the wheel of 'C'."¹⁶⁷ The theory explains how children's drawings express a peak of artistry at the age of five, and that most children lose their artistry between the ages of eight and eleven. Only a few juveniles rise from the bottom of the U-curve to become artists. The majority follows an L-shape, with little chance of developing their drawing and painting beyond the level of the eleven-year-old. Her criteria for making judgements about giftedness and artistry are connected to balance and expressiveness in the drawings, and the artistry she found in the drawings of the five-year-old is similar to that in the drawings of adult artists. The question is, however, what are the criteria for giftedness? Is a juvenile's classic imitation of nature a mark of giftedness, or is giftedness represented by an expressive painting with a broad brush?

David Pariser and Alex van den Berg have questioned the fundamentals of the U-shaped theory of giftedness and artistry and made a replication of Jessica Davis's study that gave a different result.¹⁶⁸ Pariser and Berg used examiners with a Chinese cultural background, and they found no trace of the U- and L-curve that the Western examiners in the study of Jessica Davis did. With this, Pariser emphasises that interpretation of artistry through drawings is cultural, and is defined by time, place and culture. He demonstrates how unfortunate it is to give one interpretation of artistry universal status superior to other interpretations. This time the superiority is given to expressiveness, and it is no better than when Renaissance perspective was given status prior to other notions of making pictorial representations. Davis's study and theory might serve as an example of a notion with a high value on childish expression. Her notion fit the concept of Lowenfeld by protecting children from culture, encouraging juveniles to continue drawing as they did when they were five years old, and connecting this to adult artistry. Davis does not discuss whether the children were encultured into an expressive style because of the response

¹⁶⁷ Davis, Jessica. "The 'U' and the wheel of 'C'." In *Child Development in Art*, edited by Anna M Kindler, 45–58. Reston: National Art Education Association NAEA, 1997.

¹⁶⁸ Pariser, David and Axel van den Berg. "The Mind of the Beholder: Some Provisional Doubts About the U-curved Aesthetic Development Thesis." *Studies in Art Education* 38, no. 3 (1997): 158–178.

they were getting from teachers and parents. And if they did, how free were then their artistic expressions in drawing?

“Child art” has been studied for the last 100 years. Coincidentally, the notion that children’s drawings were art also arose a century ago, with the birth of modern art.¹⁶⁹ We might love the spontaneous and colourful drawings of the five-year-old, but to put the lack of education as an aim for education is in itself an antagonism. Artists have been inspired by children and have made powerful art, but that is not the same as making the drawing style of the five-year-old a criterion for giftedness and artistry, as Jessica Davis seems to do. Still the study is interesting because it illuminates a practice, which is probably very influential in Western countries, but not so often articulated. A growing interest in expressionism at the beginning of the century appeared simultaneously with the growing interest in the psychology of children’s drawings. The child’s undeveloped motor skills gave the drawings an expressive touch. The examiners in Jessica Davis’s study represented the modernist views on “child art” and the modernist mixtures with “child art” are in a way self-contradictory. It is a strange coincidence that the philosophy of modernism, with its faith in progress, has been merged with the concept of “child art”, with a predilection for keeping the childish drawing alive, has had such an influence on art education. Perhaps they were contradictory on the surface, but allies underneath? Modernist art education has in a way shown a contemptuous attitude to our own Western visual heritage, often articulated through a denial of linear perspective. The modernist concept of progress is also present in Lowenfeld’s theory from 1947, where the child’s drawings develop naturally towards an ever more naturalistic representation. Also Helga Eng saw Margaret’s drawings as steps on the road towards representation of the visible world in her study at the beginning of the century. But even if Eng observed how some of Margaret’s drawings evidenced influence from pictures in books and magazines,¹⁷⁰ she kept on emphasising how Margaret made progress in drawing all by herself, without any guidance.¹⁷¹ Again the contradiction

¹⁶⁹ Parsons, Michael. “Book Review: Kindler, Anna M., ed. *Child Development in Art*. Reston: National Art Education Association NAEA, 1997.” *Studies in Art Education* 40, no. 1 (1998): 80–91. p. 80.

¹⁷⁰ Eng, Helga. *The Psychology of Child and Youth Drawing: From the Ninth to the Twenty-fourth Year*. London: Routledge & Paul Kegan, 1957. p. 15.

¹⁷¹ *Ibid.*, p. 3.

between aim and education is exemplified. With an educational aim to unfold the natural way of representing the visible world, it must be important to protect the child from culture, but it is still contradictory.

David Henry Feldman has developed a theory on cognitive development, which can serve as an illustration of one view on how children develop mentally and how they are encultured.¹⁷² His theory has not been developed specifically to illuminate children's drawings, but it might be useful as a basis for discussion. These universal stages are widely documented by Kerschensteiner and Kellogg. Feldman does not call the universal stage creative; he describes a development from the universal through the cultural, to the discipline-based and idiosyncratic before finally reaching the stage of the unique and creative. This is a totally different explanation from that of Lowenfeld, which maintains that children should be kept away from culture in order to stay clean and protect their native-born creativity. Feldman's theory is a contradiction to that of Lowenfeld, but it fits with the theory of Gombrich when it comes to the influence of culture in the youngster's drawing activity.

Children grow into a culture and their drawings reflect the culture they live in. The phenomena was observed even before Gombrich published his theory in *Art and Illusion* in 1960 where he refers to Wölfflin, who claimed that paintings owe more to other paintings than they owe to direct observation.¹⁷³ In 1938 Mountford describes the changing drawings of an Australian Aboriginal who grew up in a European foster family and picked up their way of making visual representations. When he later returned to his Aboriginal ancestors he started to use their way of making representations.¹⁷⁴ How different cultures influence juveniles' drawings can also be described through a situation from art schools in the Soviet Union in the 1970s, when Ingeborg Glambek visited a Soviet art school for juveniles together with colleagues and students from art teacher training college in Norway.¹⁷⁵ The Norwegian group was critical when they saw how the Soviet juveniles were educated into classical drawing and

¹⁷² Feldman, David Henry. *Beyond Universals in Cognitive Development*. 2d ed. Norwood, N. J.: Ablex 1994. p. 47.

¹⁷³ Gombrich, E. H. *Art and Illusion*. p. 268.

¹⁷⁴ Mountford, Charles P. "Contrast in Drawings Made by an Australian Aboriginal before and after Initiation" *Records of the South Australian Museum* 6, 1938. (unpaginated)

¹⁷⁵ Information given in conversation with Ingeborg Glambek, summer 1999.

painting, including the use of linear perspective. The Norwegian group asked the Soviet teachers to explain why the juveniles drew in such an academic and adult style, and not in the way children naturally drew and painted. The Soviet teachers commented that they always got that question from Scandinavian visitors, and the answer was the same: We teach the juveniles to master the Western visual tradition. This is opposite to the Norwegian tradition, where the youngsters are assumed to develop through drawing activity *without* instruction. According to the Swedish researchers Sten Pettersson and Gunnar Åsén, these attitudes also guide Swedish teachers. In their study from 1989 where classroom teachers were asked about their attitude to children's drawing, they answered that they avoided correcting a child's drawing, and that teaching could make the child lose faith in its own abilities.¹⁷⁶ Pettersson and Åsén also unveiled the assumption that all children had equal possibilities to succeed in drawing with a free and imaginative subject. Such free drawing activity seemed to increase the differences between children from different social groups rather than opening up new worlds for those who did not already have access to the visual codes.¹⁷⁷

The American art educator Brent Wilson has studied the drawings of Japanese children and juveniles. In Japan the children are taught drawing step by step in school, and Japanese pupils have textbooks in art and craft for each year. Wilson was not primarily concerned with their drawings from school; he was more interested in studying those done outside of school, particularly the manga drawings – a special style of cartooning. He found a living drawing culture among the juveniles, where they copied and developed the style of the manga figures, drawn with big eyes quite unlike their own.¹⁷⁸ This shows how their drawings were influenced by pictures, and not by real life. It also shows that the manga style is quite unlike the art style they learn in school. Wilson does not emphasise the transfer from the school activity to the manga drawing, but I think it is interesting when compared to the findings from “Draw 92/97”. Even though the manga style is unlike the style taught in school, the youngsters

¹⁷⁶ Pettersson, Sten and Gunnar Åsén. “Bildundervisningen och det pedagogiska rummet. Traditioner, föreställningar och undervisningsprocess inom skolämnet teckning/bild i grundskolan.” Högskolan för lärarutbildning i Stockholm, 1989. p. 164.

¹⁷⁷ *Ibid.*, p. 274.

¹⁷⁸ Wilson, Brent. “Types of Child Art and Alternative Developmental Accounts: Interpreting the Interpreters.” *Human Development* 40, no. 3 (1997): 155–168.

seemed to be able to transfer what they have learned about overlapping, diminution and perspective in school to their manga drawings. According to Wilson, Japanese juveniles seemed to continue their drawing activity in connection with an activity, meaningful to them, outside of school. Some of the youngsters made money by selling their drawings at huge manga conventions. This might indicate that Japanese youngsters continue to draw, and that skills acquired at school give them a possibility of choosing and a feeling of mastery and joy. Another important issue for the Japanese manga tradition is that it involves the adult world and it involves money. Such an attraction makes drawing activity important and valuable. The same is described in “Draw 92/97” during the drawing contest for the Olympic games in Albertville in 1992. Television and national newspapers gave great attention to the children’s drawings and the prizes were attractive, also to adults. The manga example might underline that juveniles can shift between different repertoires if they have the basic skills, and that they will continue to draw after reaching thirteen if they have obtained a feeling of mastery in drawing.

The resistance to the teaching of drawing skills such as overlapping, diminution and perspective in the compulsory schools in Norway has been overwhelming, and even if I have difficulties in finding substance in their argumentation, I am sure the teachers themselves think they are doing the right thing. I think their practice is based on faith more than on good arguments and research. Piaget’s developmental stages also had a great influence on how Lowenfeld developed the stages of drawing. Physical and psychological arguments, e.g, children’s lack of ability to see depth, have also been used to avoid the teaching of depth cues. Such arguments fall apart when one considers children like Nadia and Yani. At the age of five, Nadia Chomyn made remarkable photographic drawings of horses, despite her autistic diagnosis and her undeveloped physical co-ordination. Her drawings were unlike all other children’s at the same age.¹⁷⁹ The Chinese girl Yani made wonderful drawings of monkeys when she was three.

¹⁷⁹ Paine, Sheila, ed. *Six Children Draw*. London: Academic Press Inc., 1981. pp. 49–50

SUMMARY PART 2

The study of “Draw 92/97” does not give reason to believe that pictorial representation of space in drawing has systematically been promoted in the core subject *Forming* in middle school (ages 10–13) in Norway from 1992 to 1997. Neither the conception of representing space as plan and elevation nor the conception of representing the visible world as it appears through the eye seems to have been developed systematically through the five years where *Forming* has had as many scheduled lessons as mathematics. It is not relevant to blame the National Curriculum, Model plan (*Mønsterplanen*) (*M-87*) from 1987, nor the time available for or used on drawing activities in *Forming*, for the lack of attainment in drawing, since the framework for *Forming* is among the best in the Western world. Despite this framework at school, the youngsters’ interest in drawing declined dramatically at the age of twelve; this might have several explanations.

The assessment statistics for *Forming* from 1989 to 1997 register a subject in which high grades are attained, and give no indication of a subject in difficulties. Since the teachers make the assessments, it is relevant to assume that high grades reflect the teachers’ satisfaction with the pupils’ accomplishments in *Forming*. The assessment statistics also reveal that *Forming* is the subject in which it is most difficult to achieve the highest grade, and easiest to avoid the lowest. This can be interpreted to mean that the teachers have difficulties in deciding what is and what is not a standard of excellence in *Forming*. *Forming* encompasses more than drawing, but if the activities and assignments in drawing were based on self-expression, it would be understandable that a teacher would avoid using the highest and the lowest grades. But it is also possible that the *Forming* teachers estimate it to be acceptable and understandable that the pupils make no progress in developing their capacity for visual communication through drawing in school. The teachers might even prefer the pre-school drawing style to the cultural conventions so much, that they consider any teaching to be unnecessary and, indeed, even damaging. It might also be that teachers are uncertain of the aims and objectives for drawing in compulsory school, and then it might be safe and easy to keep practising the strategy from the seventies of non-intervention.

The strategy of hands-off in drawing has its base in the romantic heritage from Rousseau and Cizek, brought to Norwegian teacher training by way of a translation of the bestseller *Creativity and Mental Growth* by Lowenfeld and Britain. This book has been a winner at Norwegian teacher training colleges in the sixties and seventies, and even if it is no longer obligatory in the syllabuses, the hands-off philosophy still seems to have a great influence. But youngsters are encultured into the society they are exposed to even if their teachers in *Forming* avoid teaching anything and, consequently, allow the mass media to take over the teaching of style, form and values. Gombrich has in *Art and Illusion* from 1960 described how pictures come from pictures and Brent Wilson, Marjorie Wilson and Kristian Pedersen have made important contributions to the study of the mass media's effect on the juvenile's drawings. But regardless of whether the youngsters' drawings are influenced by images from the mass media or if the drawings are naturally unfolding self-expression, the question of teaching or not teaching is still there. The dramatic decline in interest in drawing at the age of thirteen might be caused by the youngster's own feeling of lack of mastery, even if the teachers' attitude indicates the opposite.

Perhaps *Forming* in compulsory school should just aim to be a break from all the other "important" subjects and activities, and that it should be acceptable that pupils who want to learn more about drawing turn to others than their teachers. This point of view would satisfy those who have little regard for art and design, since there would be no need for educated art teachers in the compulsory school. There are, however, many reasons for keeping art education in compulsory school as a core subject, and one reason is that knowledge of spatial imagination and the ability to communicate visually through drawing is important. This is because many decisions about our future will be made on the basis of representations, and laymen will participate in these decision-making processes.

The ambition of the following study – "Villa 3CM" – is to uncover some of the problems laymen meet in a dialogue based on visual representations. These aspects might be of importance when justification for art in the compulsory school is discussed in the final chapter.

Part 3: Layman Participation in Discussions on Design

The cultural White Paper Culture in Our Time (*Kultur i tiden*) from 1992 has put public attention to architecture and our built environment on the agenda. To bring the political intentions into action, the requirements for aesthetic judgement were secured by law, *Norwegian Form* was established, architecture and design were strengthened in the compulsory school in the new National Curriculum from 1997, and relevant projects were founded. Since laymen are involved in decision-making processes when our built environment is planned and developed, I found it relevant to study the kind of challenges and problems a layman meets and how he or she is prepared to communicate on the basis of representations. “Villa 3CM” is a simple case study in which only three persons are involved, but the problems raised in this study might influence our understanding of the type of problems laymen will meet as they try to visualise their ideas and communicate on the basis of spatial representations. The problems illuminated in Part 3 can reflect an *external* perspective on art education in compulsory school.

THE CASE STUDY OF “VILLA 3CM”

I have studied the planning process of a family, husband and wife, for almost two years, from the early sketches of their new dwelling in August 1997, to their finished dwelling in June 1999. The framework and methodological choices are presented and discussed in the preliminary chapter. I have observed the architect and the clients during their meetings and I have had interviews with them twice, first when the

drawings were completed and later when the dwelling had been built. The family had carefully discussed the benefits and disadvantages of a “catalogue-house” compared to an architect-designed house. They came to the conclusion that the cost would be about the same, but the complex topography of their site was the final argument for choosing to use an architect instead of a “catalogue-house” solution. They also wanted a house that was a bit special – the male client often mentioned that he wanted the facade to have a “rough” look. They wanted an opening between the main floors: they had seen such a solution in another house, and they liked it very much. The male client often referred to the housing magazine *BoNytt* to exemplify what he liked. The architectural firm they finally chose also had a selection of *BoNytt* at the office, having experienced that clients often turned to this magazine. The clients decided to

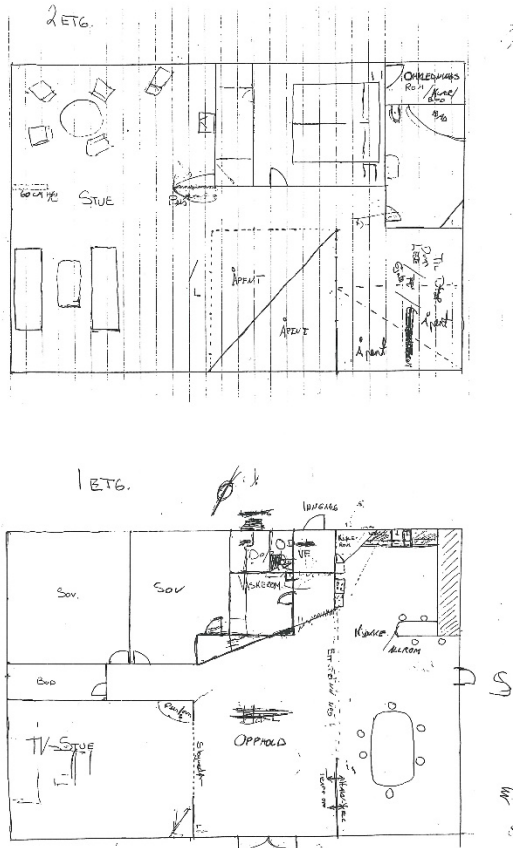
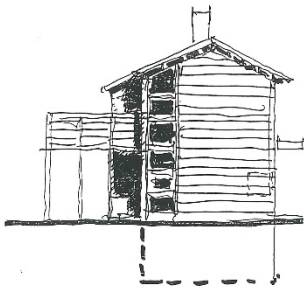


Figure 23 Sketches by the male client

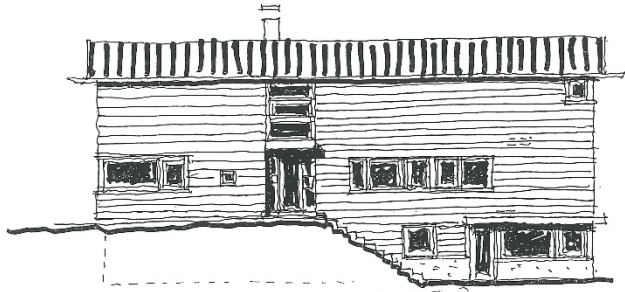
give the job to this particular architect after first having contacted several others. They liked his previous works and they felt comfortable conversing with him. The architect in the case study is a member of the *National Association of Norwegian Architects (Norske arkitekters Landsforbund)*; he has run a small company together with his associate since 1987, and he has experience from both public and private building commissions.¹⁸⁰ The clients had been preparing for their new home for about one-and-a-half years by visiting houses for sale and showrooms, and they had become rather familiar with the symbols of plan drawings. Early in the process the architect asked the clients to make a drawing to show the solutions they had in mind for their new dwelling. The male client made a plan drawing showing two floors (see Figure 23). He was quite satisfied with his drawing, but later in the process he laughed at it: There were no stairs to connect the two floors. This was his only drawing during the whole process, and when he was later asked to draw, he refused.

The observations from “Villa 3CM” cover the meetings where the architect presented, explained and discussed the drawings and models of the future dwelling with the clients. The study does not include observations of the architect’s drawing activity between the meetings. Various alternatives of the dwelling were presented at the meetings. After having discussed the site, the budget and the client’s sketch, the architect made two alternative suggestions, one was a Long and Slim (LS) dwelling (see Figure 24), and one had a Big Roof (BR) (see Figure 25). They were presented at the meeting 10 September 1997, both as drawings and as cardboard models (1:200). The clients liked both houses, and had difficulties in deciding which of them the architect should continue to work with. They were satisfied when the architect suggested merging the two alternatives. At the next meeting, 18 September 1997, the architect presented a merged dwelling (LS/BR) (see Figure 26) both in drawings and as a cardboard model (1:200), and the clients were very pleased. Later the dwelling was decided shortened by one metre (LS/BR-min), both because of economy and the fact that the family did not need so many square metres. The shortening of the dwelling caused problems with the proportions of the east facade, which now seemed taller than

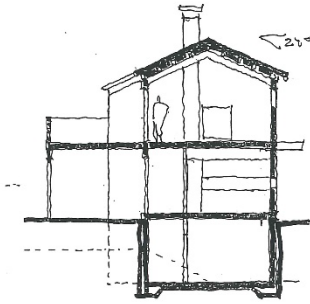
¹⁸⁰ QSR NUD.IST: Interview (Aintervju1: Text Unit 7-15)



FASADE SØD

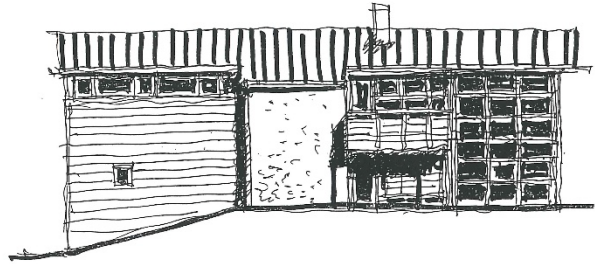


FASADE ØST

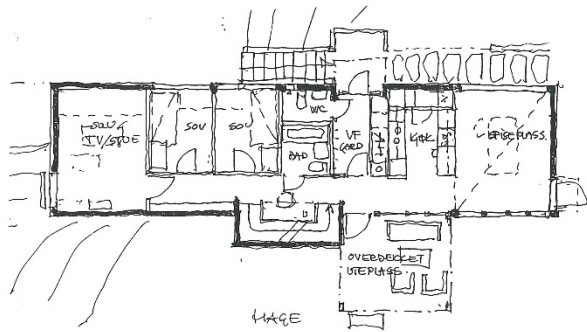
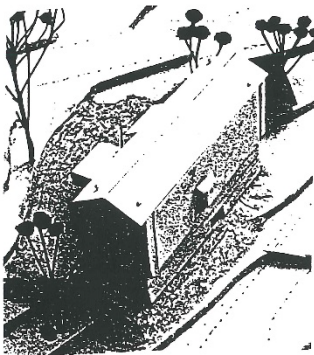


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SØM.

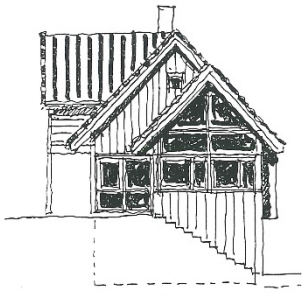


FASADE VEST

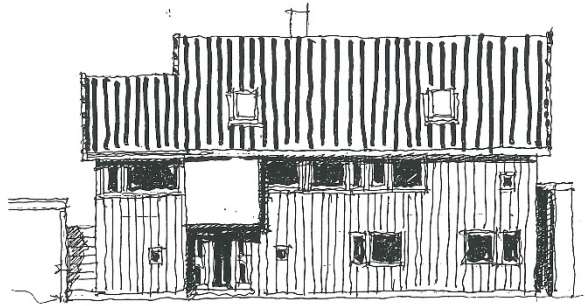


PLAN 1. ETASJE.

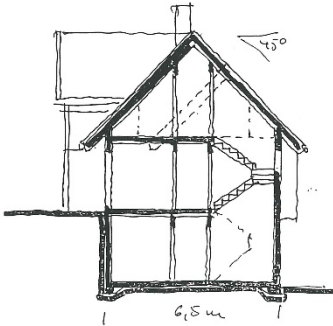
Figure 24 First alternative: Long Slim (LS).



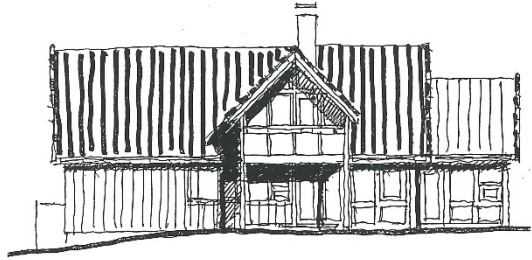
FASADE MOT SYD.



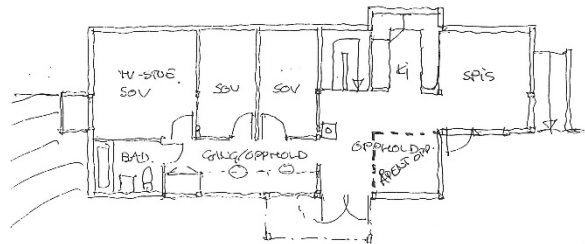
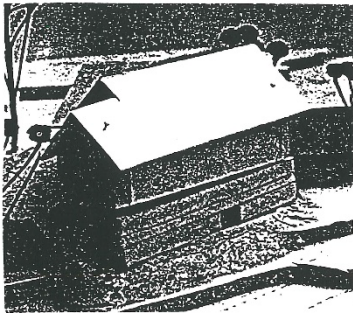
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SNITT



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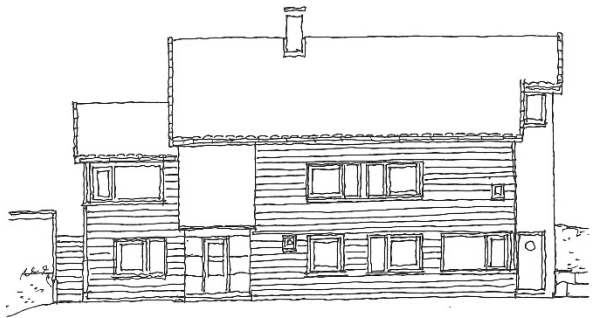


PLAN 1 ETASJE

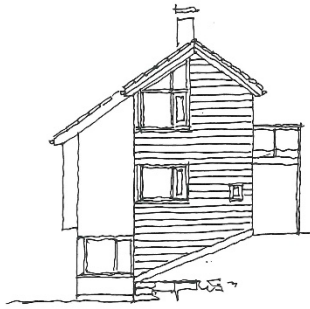
Figure 25 Second alternative: Big Roof (BR).



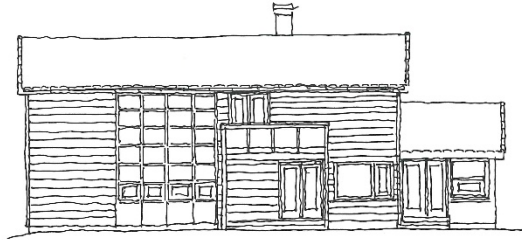
FAÇADE MOT SVD.



FAÇADE MOT OST.



FAÇADE MOT NORD.



FAÇADE MOT VEST.

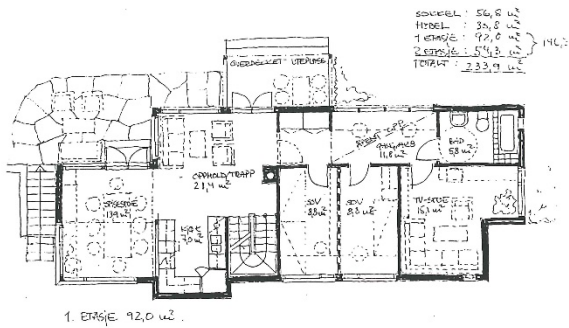


Figure 26 Third alternative: A merge of the first and the second alternative (LS/BR).

before. The architect suggested moderating the impression of height by adding a small balcony, and a drawing of the east facade with a balcony was sent by fax to the male client. The clients were not happy with this solution since they did not need a balcony. At the meeting 7 November 1997, the clients formulated their arguments, but they also listened to the architect who presented more drawings and arguments for solving the east facade problem. The clients chose to follow the architect's advice and the final drawings for the planning authorities were developed. The architect made no model of the final dwelling.

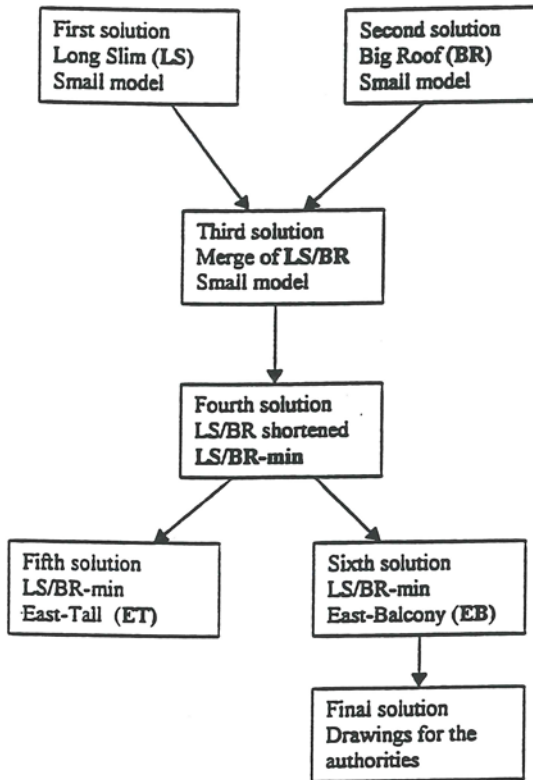


Figure 27 Different solutions for “Villa 3CM” shown to the clients during the design process.

During the process, the female client had her own method of exploring the spatial consequences of the drawings. She had taken the idea from her work with pre-school children, how they investigated depth, scale and space. She actively investigated her own flat and the flats of her friends to train her imagination regarding space and square metres.¹⁸¹ She was lining up, counting, looking, and asking questions. She also used her imagination to picture how the new dwelling would turn out by “walking” from room to room, all on the basis of the drawings.¹⁸²

During the planning process, the architect presented 119 sketches and drawings: 30 sketches made at the meetings, 71 between the meetings, and finally 18 drawings for the building authorities. The small sketches that were made during the meetings were produced to explain ideas and solutions for the clients. During the planning process, the male client was very busy studying the drawings at home. But when he was asked if he had understood the architect’s small sketches during the meetings, he answered that he had not understood them all.

...all these sketches that the architect made during the meetings to illustrate problems and considerations, there my qualifications are rather limited. So, some of the drawings I understood, but to others I just nodded. The architect most certainly understood that I didn’t, I said so, too. They meant little to me. (...*alle disse skissene som arkitekten brukte underveis for å illustrere liksom problemstillinger og vurderinger, der er mine egenskaper sånn at de er ganske begrensede. Så noen av tegningene forsto jeg, men andre bare nikket jeg. Arkitekten skjønte helt sikker at ikke jeg skjønte, det sa jeg også. De sa meg lite.*) (2intervjuBHM: Text Unit 79)

On another occasion the male client mentioned sketches of staircases in particular.¹⁸³ The architect had made sketches to illustrate the difference between a turning staircase and a turning staircase with a landing. When interviewed later, with the sketches at hand, the female client described how the male client had not been able to understand solutions for the stairs, while it was perfectly clear to her.

¹⁸¹ QSR NUD.IST Interview (bhfintervju1: Text Unit 290)

¹⁸² QSR NUD.IST Interview (bhfintervju1: Text Unit 237)

¹⁸³ QSR NUD.IST Interview (2intervjuBHM: Text Unit 87)

...here it shows that the stair goes like this, up like this, doesn't it? While BHM hadn't seen this. It was absolutely clear to me. (...her viser den trappa at ho går sånn, sånn opp, ikke sant? Mens BHM hadde ikke sett det, han. Det var helt opplagt for meg, liksom det.) (bhfintervju1: Text Unit 323)

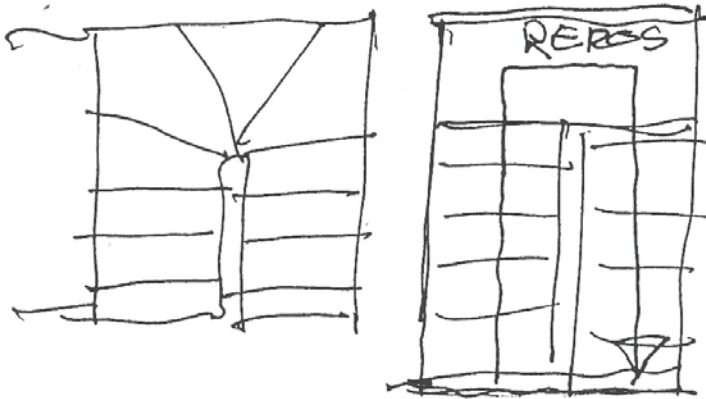


Figure 28 Staircases – sketches from a meeting

When the architect later proposed moving the stairs in order to arrive at a better solution for the guestroom, the male client was much impressed by the architect's ability to come up with new solutions that would never have occurred to him.¹⁸⁴ It seems as if the male client did not even think of moving the stairs. Of course it was easy to move them, or rather their representation, on the drawing.

Early in the process the architect made it clear that he would listen to all requirements from the clients as carefully as he could. On deciding about the inside plan of the house he would, in case of disagreement, let the clients' wishes come foremost. But if a disagreement arose about the facade of the house, he would like to have the last word.¹⁸⁵ He explained that the facade would be a concern for the neighbours and others for many

¹⁸⁴ QSR NUD.IST Observation (100997ob: Text Unit 64)

¹⁸⁵ QSR NUD.IST Observation (100997ob: Text Unit 171), Interview (bhfintervju1: Text Unit 221)

years to come, while the inside of the house was for themselves, their friends and their family. The clients agreed to this early on. When the disagreement about the design of the east facade arose, the clients wanted to have the facade the way it looked before the shortening, while the architect wanted to break up the wall with a small balcony (East-Balcony) (EB) as it otherwise would look too tall (East-Tall) (ET). The development of the east facade can be seen in Figure 29. The decision about the east facade had to be made on the basis of the drawings. The clients liked the original drawing, where the facade of the dwelling was one metre wider, but they had some problems in formulating their point of view.

After the architect had explained all the changes including the ones on the east facade by pointing to possibilities for moving the kitchen, moving the windows and as a final suggestion adding a balcony, the female client said:

I like that facade (pointing at East-Tall). It has style – plain and simple. The facade with the balcony (East-Balcony) does not strike me. The original (East-Tall) suits me better. The house itself will not be lower – it is just the visual image. (*Jeg liker den fasaden (peker på ØSThøy). Den er stilren – glatt og enkel. Den med balkongen (ØSTerr) treffer ikke. Den opprinnelige (ØSThøy) passer meg bedre. Selve huset blir jo ikke lavere – det er bare det visuelle.*) (071197ob Text Unit 169)

Later the male client commented:

This is aesthetics. We saved money on shortening the house by one metre. We do not want balcony doors that we do not need. (*Det er estetikk. Vi sparte penger på å kappe huset 1 meter. Vi vil ikke ha balkongdører som vi ikke har behov for.*) (071197ob Text Unit 202)

Despite this disagreement, the meeting had a friendly atmosphere, and at the end, both the clients and the architect were willing to compromise.

Male client about the East facade:

I am working on the case. I'm really trying to see the facade from another angle. (*Jeg jobber med saken. Jeg prøver virkelig å se fasaden fra en annen vinkel.*)



Figure 29 Alternatives of the East Facade on (LS/BR-min) discussed at the meeting 7 November.

Architect:

I'll try another variation. You can also try to think a little differently. (*Jeg skal prøve en ny variant. Dere får også prøve å tenke litt nytt.*)

Female client:

It doesn't take much till you get it the way you want it. (*Det skal ikke så mye til før du får det som du vil.*) (071197ob Text Unit 216-220)

The dispute was based upon drawings, and both the clients and the architect had to imagine how it would turn out as a finished building on that particular site. The clients, of course, did not have as much practice as the architect in envisioning a dwelling in full scale on the basis of

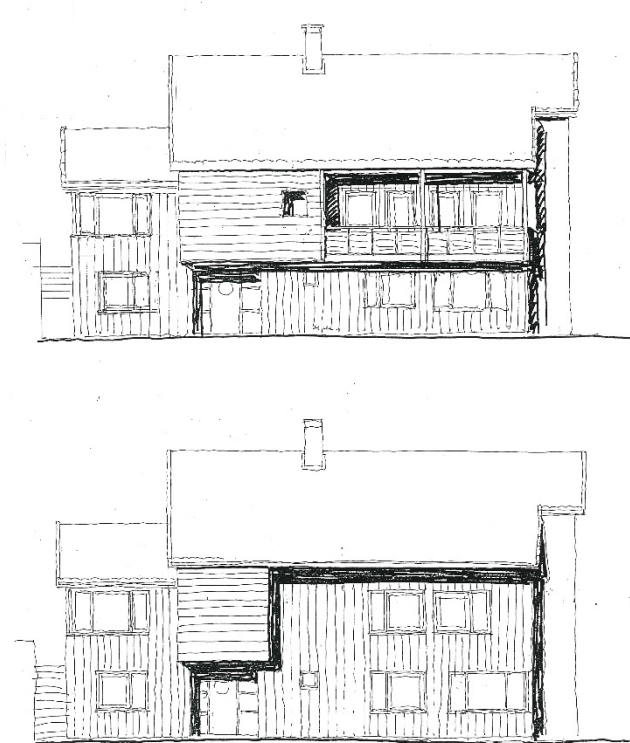


Figure 30 Faxed versions of the East Facade. Above East Balcony (EB), below East Tall (ET)

drawings and making qualified judgements about the proportions. In the end, the clients decided to listen to the architect. After all, they had hired a specialist to design their house. The reduction of one metre happened rather late in the process when the drawings were almost finished. If it had happened earlier, new drawings would probably have been presented to the clients at their meetings with the architect, and confusion could perhaps have been cleared up more easily. But the new drawing of the changed east facade was sent by fax to the male client at his office. This faxed drawing also had some dark shading, which had not been used so much in the previous drawings. This unfamiliar drawing style combined with an interpretation of the drawing without the architect at hand might also have influenced the clients dislike of the new east facade. At the meeting with the architect, the male client admitted that his interpretation of the east facade had changed:

I like the east facade (East-Balcony) better now – without the big shadows. (*Jeg liker denne ØSTerr bedre nå – uten de store skyggene.*) (071197ob Text Unit 187)

When deciding to reduce the dwelling by one metre, the clients were anxious that the opening between the two floors might appear too small. The architect made a sketch to elucidate how they would be able to look down to the first floor.¹⁸⁶ He made a section drawing, which can be seen in below. The male client had this comment to his own understanding of that drawing:

That sketch showing the line of sight and the opening from the living room on the second floor – it was amusing afterwards, because it turned out to be right. But I *was* sceptical to that. It was too theoretical. (*Den skissen over siktlinjer og åpninger fra stua i annen etasje da, den var artig i ettertid, for den klaffet jo bra. Men den var jeg skeptisk til. Den var for teoretisk.*) (2intervjuBHM: Text Unit 79)

¹⁸⁶ This sketch was made at a meeting to discuss the budget, at which I was not present, but I explained the sketch to the male client when interviewing him later.

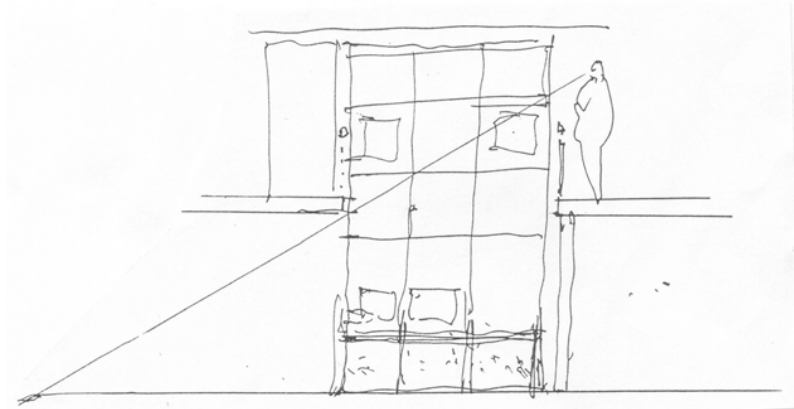


Figure 31 Sketch from a meeting. Opening between two floors, section drawing

When sitting in the finished dwelling I reminded the female client of their fear that the space in the opening between the two main floors would be too small. She responded:

Yes, think about it, and it (the opening) isn't. Far from it. And think if it had been one metre broader, it would have been an ocean, what should we have done with that... (*Ja, tenk på det, og det er den (åpningen) ikke. Langt ifra. Og tenk hvis den hadde vært en meter til, det hadde vært et hav, hva skal vi med det liksom....*) (2intervjuBHF-Text Unit 134)

Neither of the clients had professional occupations with any particular connection to design or architecture, and neither of the clients had pleasant memories from drawing activities in the subject *Forming* from their years in the compulsory school. The female client expressed her experiences from *Forming* in the compulsory school like this:

But I do not remember anything from *Forming* in primary and middle school, and I remember very well *Forming* in lower secondary school, because it was horrible. (*Men jeg husker ikke forminga fra barneskolen, og husker veldig godt forminga fra ungdomsskolen, for der var det helt pyton.*) (bhfintervju1: Text Unit 59)

When the male client was asked if he remembered anything from *Forming* in the compulsory school, he said:

Yes, I do. Especially when you mention *Forming*, of course. I struggled terribly. It was a torment for me. (*Ja, det gjør jeg. Særlig når du vinkler mot forming, selvfølgelig. Jeg slet følt. Det var en pine for meg, det.*) (bhmintervju1: Text Unit 35)

He continued to talk about the drawings he had made at school, some of which are still hanging on the walls in his cabin. Just for fun, he had asked acquaintances to guess how old he had been when they were made, and he continues:

...there was no one who had guessed that I could have been older than in second grade (8 years). First or second grade is the level they are on, and the truth is they were done in eighth or ninth grade (12 or 13 years). So if you were to ask me to draw now, simple things – a boat or a car, a horse or a house, or whatever – it would be at a childish level. (...*det er ingen som har tippa at jeg har vært eldre enn i annen klasse. Første og annen klasse er det det ligger på, og sannheten var at det var åttende eller niende klasse. Så hvis du skulle bedt meg tegne nå, enkle ting – en båt eller en bil eller en hest eller et hus, eller hva som helst – så er det helt på barnestadiet.*) (bhmintervju1: Text Unit 35)

A look at the architect's memories from his time in the compulsory school clearly shows the opposite situation. He came from a home where there was an interest in design, and he remembers drawing at school with pleasure. When asked if he remembered anything from drawing in the compulsory school, he commented:

Yes, I do, because I have always really enjoyed drawing, and I remember from before I started school, too. I remember when I was little, saw my father drawing, and we watched him sitting and drawing as a grown man. (*Ja, det gjør jeg, fordi jeg har alltid vært veldig glad i å tegne, og jeg husker egentlig fra før barneskolen også. Jeg husker da jeg var liten, så min far tegnet, og vi så han satt og tegnet som voksen mann.*) (Aintervju1: Text Unit 95)

His interest in architecture started when he was young:

I was 10–12 years old, then I started to draw plan drawings and houses. (*Jeg var 10–12 år, så begynte jeg å tegne planløsningene og hus.*) (Aintervju1: Text Unit 87)

About his relation to drawing today, he said:

...I often have a need to draw so as to be able to express myself, or I can't really express myself without a pen ... (*jeg har det ofte sånn at jeg må tegne for å klare å uttrykke meg, eller jeg kan altså ikke uttrykke meg uten en penn.*) (Aintervju1: Text Unit 278)

There is an age difference between the architect and the clients, which might have influenced their experiences from school. The architect went to the compulsory school when the Normal plan (*Normalplanen*) from 1939 served as the National Curriculum, where drawing and handicraft were separate subjects. Both clients went to school after drawing and handicrafts were merged into the subject *Forming*.

Even if the architect and the clients had their disagreement on the east facade, they kept a friendly atmosphere throughout the process. The clients did learn in action from the architect, but they had some difficulties in arguing with him about the east facade. Since the clients were unable to visualise their ideas, they had to rely on the architect's ability to transform their words into images and models throughout the process. The clients expressed their satisfaction with the way the architect had understood and incorporated their ideas.¹⁸⁷ When sitting in the finished house both clients were quite satisfied, and they said that the dwelling had fulfilled their expectations. The male client put it this way:

If the house turned out to be as I thought it would: yes, most definitely. It most definitely has. We've really talked about that many times, too, precisely the section we're sitting in now, the dining area and the kitchen and – call it the main room function or whatever you like – it has become exactly as we both hoped it would be, and more or less as we thought it would be, too. As it was based when we sat and looked at the drawings. The living room upstairs with the opening and more or less that solution...

¹⁸⁷ QSR NUD.IST Observation (180997ob: Text Unit 135)

Om huset ble slik jeg trodde: ja, det har det definitivt blitt. Det har det definitivt blitt. Det har vi egentlig snakket om mange ganger også, akkurat den avdelingen som vi sitter i her nå, spisedelen og kjøkkenet og kall det hovedromfunksjon eller hva du vil, den har blitt akkurat sånn som vi både håpet den skulle bli, og for såvidt sånn som vi trodde den skulle bli også. Etterhvert basert på når vi satt og så på tegninger. Stua oppe med åpningen og liksom den løsningen....
(2intervjuBHM: Text Unit 7)

It is impossible to know what the clients thought they ordered, but their answer can be interpreted as a sign of great satisfaction, and they give great credit to the architect.

Representations and Imagination

When the clients in “Villa 3CM” had to choose between a “catalogue-house”¹⁸⁸ and a dwelling designed for a particular site by an architect, they decided to go for an architect-designed dwelling. In choosing an architect-designed house they represent a minority in Norway, where the housing market is dominated by “catalogue-houses”. According to the Norwegian researcher Hild Sørby, there are no official statistics that show the market share of “catalogue-houses”, but the branch itself estimates its share to be approximately eighty to ninety percent.¹⁸⁹ When trying to explain this market dispersion, Sørby stresses how the “catalogue-house” branch has focused on communication with the client both in their catalogues and by offering access to “show-houses”. She emphasises that:

Most people have difficulty in reading architectural drawings, to imagine constructed forms on the basis of sectional- and plan drawings. The “catalogue-house” branch has put great stress on presenting all houses with perspective drawings, or with photos of finished houses. (*Folk flest har problemer med å lese arkitekturtegninger, med å forestille seg byggede former ut fra snitt- og plantegninger. I ferdighuskatalogene er det lagt stor vekt på at alle hus presenteres i perspektivtegninger, eller som fotografier av ferdigbygde hus.*)¹⁹⁰

¹⁸⁸ “Catalogue-house” is used as a joint expression for pre-cut houses and prefabricated houses.

¹⁸⁹ Sørby, Hild. *Klar – ferdig – hus. Norske ferdighus gjennom tidene, Kult-bøker*. Oslo: Ad Notam Gyldendal, 1992. p. 10.

¹⁹⁰ *Ibid.*, p. 150.

In Sørby's study, the main reason that clients chose "catalogue-houses" instead of architecturally designed houses was not the price nor the time, but their chance of getting what they wanted when ordering a "catalogue-house". Representatives of the "catalogue-house" branch emphasised in the same study that their house-concept gave room for individual solutions. They meant that the clients in a "catalogue-houses" concept had the possibility of being their own architect, and that their houses turned out to be the way they wanted.¹⁹¹

The clients in "Villa 3CM" did not show such scepticism to architects when the project was started in 1997. During the planning process the architect presented more than one hundred sketches and drawings. He also made three different models, although none of the final dwelling. He was very quick sketching with his pencil, visualising while he was talking and explaining. In the interview he said that he also drew daily when he was discussing with colleagues; he felt "naked" without a pencil in his hand. In his discussion with the clients in "Villa 3CM" the architect used chiefly plan and elevation drawings, even if they are more abstract than perspective drawings. None of the clients complained during the meetings about not understanding the architect's drawings, but the male client later admitted that he had not understood the small sketches made during the meetings. It was particularly the section drawings that caused difficulties. And in a way this is strange, since section drawing, or x-ray drawing as it is also called, is what almost all children use when they draw.

During one of the meetings between the architect and the client, the male client looked astonished when the architect suggested moving the stairs, as if he thought that would be too difficult. But moving the stairs around on the drawing was of course no more difficult than moving a wall. At another time, when the architect suggested moving the chimney, the male client was very impressed; he had not even thought of that possibility. Of course the architect has practice in seeing possibilities for new solutions – that is his profession – but it seems as if his drawing skills helped him generate new solutions easily. The male client, who could not draw

¹⁹¹ Ibid., p. 150.

readily, had his experiences from real life, with thick walls, solid stairs and unmoveable chimneys, and consequently the architect's easy changing of stairs and chimney was astonishing. It surprised him, even though he was perfectly aware that the dwelling was still only an image on paper. For those who master the art of drawing it seems so easy to do, and it is fascinating to see how quickly an idea can be visualised and changed again and again. During his architectural education, the architect was trained to draw both what he saw and what he knew. From drawing what he saw, he developed the skill of giving visual form to his ideas. Drawing "from world to mind" and "from mind to world" are two complementary skills. The architect has developed a repertoire of various ways to represent his ideas by drawing plan, elevation, isometrics and perspective, and he has developed the skill of envisioning three-dimensional space from a two-dimensional representation.

The architect in "Villa 3CM" was an established, skilled and experienced architect. He had developed his capacity for imagination and visualisation, and in trying to make the clients' dream of their new dwelling come true, he used both drawings and models. In the interview he mentioned that it was not profitable to invest so much time in one dwelling, but as he often drew flats for big public clients, he liked the challenge of other types of commissions.¹⁹² Throughout the entire "Villa 3CM" process there was good communication between the architect and his clients. The architect served the clients well, and they have argued and discussed. In the dispute about the east-facade the clients decided, after some arguing, to listen to the professional voice of the architect. Afterwards they felt very well satisfied with their dwelling, even with the east facade.

The American researcher and architect Dana Cuff has tried to find out what makes some architectural projects excellent. In *Architecture: The Story of Practice* she analyses three "excellent projects", trying to figure out the roles the architect and the client had during the process, and what made these projects excellent. She found that clients who participated in "excellent projects" had a clear precedent in mind: They were looking for quality, and selected the architectural office on the basis of its past work, which they perceived to be closely related to their expectations. The

¹⁹² QSR NUD.IST interview (2intervjuark: Text Unit 114)

clients were open-minded and flexible, they were willing to take advice, add to the budget, and remove themselves from the architect's intimate area of expertise – the manipulation of physical form. The excellent architect, Cuff found, was attentive to the client's interests, yet also willing to argue strongly for his convictions. None of the architects in "excellent projects" tried to squeeze a profit out of the project.¹⁹³ The Swedish researcher, Ulf Janson, came to some of the same conclusions as Cuff in his doctoral thesis about the client's role during the design process. In his study of four projects by the famous Swedish architect Jan Gezelius, Janson found that there was a benefit for the project in *not* giving the architect a free hand. The critical but friendly dialogue between the architect and the client helped the project to a successful end.¹⁹⁴

The American sociologist Judith R. Blau has focused on the social underpinnings of the design process instead of on studies of finished buildings and their use. In 1974 she started her study of 152 randomly selected Manhattan architect offices, and she found that there are contradictory features in contemporary practice. Her focus was on the architect, but the client's satisfaction was also one of her themes. She studied the client's satisfaction by looking at the loyal clients who returned to a firm again and again. Among the architects in professional offices there was a middling reflection that having satisfied clients indicated true success. But Blau's findings from practice showed that satisfied clients were *no* mark for professional success when success was measured by awards, productivity and profits.¹⁹⁵ This shows that there is a discrepancy, at least in the United States, between what the architects say is the most important issue, and what a jury emphasises in making awards for excellent architecture.

The Norwegian architect Eli Støa has studied a Norwegian housing estate, and she describes how important the client's feeling of participation is, irrespective of choosing a "catalogue-house" or a house designed by an

¹⁹³ Cuff, Dana. *Architecture: The Story of Practice*. Cambridge, Mass.: The MIT Press, 1991. pp. 232–233

¹⁹⁴ Janson, Ulf. "Vägen til verket: studier i arkitekt Jan Gezelius arbeidprocess" *Doktorsavhandlingar vid Chalmers tekniska högskola Ny serie 1394*. Göteborg: Daidalos, 1998. p. 218.

¹⁹⁵ Blau, Judith R. *Architects and Firms. A Sociological Perspective on Architectural Practice*. London: The MIT Press, 1984. pp. 109–113.

architect. She describes from her study that even if their influence had been minimal, the *feeling* of having influence was very important.¹⁹⁶ Another Norwegian architect, Inger-Lise Saglie, has studied problems concerning densification, when new dwellings were planned and set up in a small town centre in Norway. During the planning process there were neighbourhood protests, which is not surprising in densification projects, and the protests made the developers and planners modify their proposals. When interviewing the neighbours after the housing was finished, Saglie found that the majority of earlier protesting neighbours were now satisfied with the results.¹⁹⁷ This might be a consequence of the feeling of participation. The importance of participation might be calculated on the part of the planners, knowing that some changes have to be done in order to realise a densification plan without too much delay caused by angry and dissatisfied neighbours. In any case, it emphasises the importance of participation when developing our built environment. Experiences from participation from users and neighbours in connecting with building projects is documented by, among others, Kjølrsrød, Laupstad, Hamdi, Haveraaen, Hurtig and Wikström.¹⁹⁸

It may be easy to agree on how important participation is in theory, but to put the ideas into practice is sometimes more difficult. According to Sørby, architects are perceived to be more interested in drawing what they want rather than in listening to what clients or users want, and this may be one of the reasons why “catalogue-houses” have taken over such a great share of the housing market.¹⁹⁹ In the period from 1965 to 1990, when the

¹⁹⁶ Støa, Eli. “Boliger og kultur – Norske boligfelt på åtti-tallet sett i lys av beboernes boligidealer.” Dr. Ing., NTNU, 1996. p. 226.

¹⁹⁷ Saglie, Inger-Lise. “Density and Town Planning: Implementing a Densification Policy.” Dr. Ing., Oslo School of Architecture, 1998. pp. 289–294.

¹⁹⁸ Kjølrsrød, Lise. “Å bo som livsprosjekt.” *Kontrast*, no. 6 (1981): 37–43.

Laupstad, Sidsel J. “Boligprosjektering som åpen prosess. Et forsøk på å belyse prosjekteringsprosessen ut fra forutsetning om brukervedvirkning.” Dr. Ing., NTH, 1987.
Hamdi, Nabeel. *Housing without houses. Participation, Flexibility, Enablement*. New York: Van Nostrand Reinhold, 1991.

Haveraaen, Morten. *By, bosted, lokalsamfunn, bolig : fire stedsrettete arbeider hvor planlegging møter sosiologi*. Vol. 19, *Doctor scientiarum thesis, 1993:19*. Ås: Institutt for landskapsplanlegging, Norges landbrukshøgskole, 1993.

Hurtig, Eva. “Hemhörighet och stadsförnyelse – belyst i fyrtiotalstadsdelen Sanna i Göteborg,” 1995.

Wikström, Thomas. *Mellan hemmet och världen. Om rum och möten i 40- och 50-talets hyreshus*. Stockholm: Symposion Graduale, 1994.

¹⁹⁹Sørby, Hild. *Klar – ferdig – hus. Norske ferdighus gjennom tidene, Kult-bøker*. Oslo: Ad Notam Gyldendal, 1992. p. 150.

rebuilding after World War II was over in Norway and the competition for clients started, the “catalogue-house” market focused on giving the people what they wanted. The “catalogue-house” market, which no longer employed principally trained architects, increased their market share at the expense of architects.²⁰⁰ In 1979 the architect Tore Brantenberg described the situation like this:

Our exclusive attitude has paved the way for an unrestricted promotion of the “catalogue-house” market, and by this created attitudes and notions that will take a long time to correct. (*Vår eksklusive holdning har lagt god grobunn for ferdighusproduzentenes uhemmede markedsføring og igjen skapt holdninger og forestillinger som det vil ta lang tid å korrigere.*)²⁰¹

The “catalogue-house” market has taken up the challenge by giving the customer what they think the customer wants. According to Sørby, the schism between the professional architects and the needs of the public is still an unresolved problem,²⁰² and it is not hard to understand both sides in this situation. It is understandable that clients would shun architects, if the architects do not listen to their wishes. It is also understandable that professional architects would avoid clients and users who do not respect the architect’s professional knowledge, having no understanding of their own limitations as to what they would be able to influence or not. If users, novice clients and politicians do not build up a capacity to formulate and reflect upon their own ideas and desires when discussing with professional architects, they may become victims of the “catalogue-house” propaganda. Nobody, whether client, user, inhabitant or architect, can benefit from such a situation, and the circle will not be broken until there is a common awareness of the importance of visual knowledge and reflection on both sides.

Leonard K. Eaton has in his book *Two Chicago Architects and Their Clients* proclaimed that the client’s part has been neglected in architectural history, and with his book he intends to show how clients have made the great shifts in architecture possible. He gives Abbot Suger the

²⁰⁰ Ibid., p. 11.

²⁰¹ Brantenberg, Tore. “Småhus og byggeskikk.” *Byggekunst*, no. 6 (1979): 387.

²⁰² Sørby, Hild. *Klar – ferdig – hus*. p. 155.

credit for developing the gothic style, and the Medicis for the Renaissance change. They gave the gothic church a new kind of space, by promoting Filippo Brunelleschi's San Lorenzo and Leon Battista Alberti's Rucellai Family Palace.²⁰³ The American architect Andy Pressman has written a book about the architect–client relationship with the intention of promoting such interaction through its focus on more effective and gratifying politics between architect and client.²⁰⁴ He has called his book *The Fountainheadache – the Politics of Architect–client Relations*, and by adding the word ache to fountainhead, there is clear relation to Ayn Rand's famous book about the skilled architect Howard Roark in *The Fountainhead*. Pressman does not look upon the client as a necessary evil, but as an area worth studying and developing. Excellence in the built environment can be developed where architects and clients interact.

Educating for Lay Participation?

The clients in “Villa 3CM” seemed to manage rather well through the design process even though they were not able to visualise their ideas and argue well enough upon the east facade. The architect has acted as an educator during the process, and the clients have had the feeling of involvement. This in-action learning, which is rather similar to what Donald Schön describes in *The Reflective Practitioner*, has been successful in “Villa 3CM”, and the honour goes to the skilled architect. On the surface it could look as if the clients' lack of attainment in visualisation from their own compulsory education did not have any great influence on their satisfaction with the finished dwelling. This would make it easy to draw the conclusion that architects should take over the role of educator in-action for clients throughout a building process and that drawing, spatial imagination and architecture have no place in compulsory education. But, who would have to pay for this in-action education, the architect, the client or the government? And would the client in such a situation be totally in the pocket of the architect? Would the client have any possibility to argue against the architect?

²⁰³ Eaton, Leonard K. *Two Chicago Architects and Their Clients*. Cambridge, Mass.: The MIT Press, 1969. pp. 4–5.

²⁰⁴ Pressman, Andy. *The Fountainheadache – the Politics of Architect–client Relations*. New York: John Wiley & Sons, 1995. p. xiii.

If we compare the built environment in the Western world today, distinguished by commercial diversity, with the organised ancient towns of primitive tribes, it would be easy to come to the conclusion that they created better solutions in ancient times. The tribes had a long tradition of making dwellings adapted to the local environment, improved over time and through generations, and there were no architects in our sense of the word. The great difference is that today we no longer have *one* tradition or *one* decision-maker. Today we have diversity with all its possibilities and implications. Many voices are to be heard when decisions are made on a town plan or an opera house, and the elected, non-professional, politicians have great responsibility and power during the decision-making process. It often causes delay which benefits no one, but who is to blame? Do we have poorly qualified architects, with no power to communicate their ideas? Do we have incompetent politicians at both the local and the national level, paralysed in decision-making because they do not know what is best? Do the commercial interests have free latitude, with no concern for what is best for the inhabitants and the environment? Do we have an unintelligent population that does not understand what is best for their own good? Does the compulsory education system have any responsibility for preparing new generations for joint responsibility for our built environment?

But the authorities have, as mentioned earlier, emphasised public awareness in design and architecture, and they promote a climate for increased attention to quality in our built environment.²⁰⁵ They have seriously taken up the political challenge to promote aesthetic values and public participation when developing our built environment, and other ministries have followed up the initiative and intentions. *The Norwegian Ministry of Education, Research and Church Affairs* has with the new National Curriculum of 1997 strengthened drawing, pictorial representations, design and architecture in the compulsory school.²⁰⁶ The compulsory school is important, because politicians are elected to take care of and decide about environmental design, and the Plan and Building

²⁰⁵ Kulturdepartementet. St.meld. nr. 61 (1991–92): *Kultur i tiden*. Oslo: Kulturdepartementet, 1992. p. 136.

²⁰⁶ Kirke-, utdannings- og forskningsdepartementet. *Læreplanverket for den 10-årige grunnskolen*. Oslo: Kirke-, utdannings- og forskningsdepartementet, 1996. pp. 190–203.

Regulations (*Plan- og bygningsloven*),²⁰⁷ through which our elected politicians regulate, has been strengthened to promote aesthetic qualities in our built environment. On the basis of this law, *The Norwegian Ministry of the Environment* and *The Norwegian Ministry of Labour and Government Administration* have printed a circular, H-7/97,²⁰⁸ which describes how aesthetic judgement can be used to promote aesthetic qualities. *Norwegian Form*, in co-operation with Institute for Art in Space (*Institutt for Romkunst*), has arranged courses for politicians to enable them to make decisions according to the new law.²⁰⁹ But despite these efforts we do run the risk that these improvements will never be more than good intentions.

There might be arguments for the exclusion of laymen from participation when developing our built environment, and it is not difficult to understand that participating laymen like neighbours, politicians and clients might complicate and disturb the architect's creative process. But our present political system gives politicians, who are laymen in architectural planning, the power to make final decisions about our built environment, and the inhabitants who have to live in the built environment elect these politicians. It is my conviction that, until good arguments are raised for the opposite, it is beneficial for clients to participate in the discussions about the architect's drawings and the development of our built environment. A problem, however, could arise when lay politicians, clients and users do not have insight into their own capabilities and limitations and try to "take over as architects". An attitude like this to their own qualifications and abilities might be caused by a lack of respect for the architectural profession, which again might be due to an insufficient understanding of the architect's professional knowledge. However, it is interesting to note that, according to Stein Ørnhøi, no architects have ever been elected to the Norwegian Parliament (*Storting*).²¹⁰

²⁰⁷ Stortinget. *Plan og bygningsloven av 14 juni 1985 nr. 77*. Oslo: Cappelen Akademiske forlag, 1997. pp. 1, 10, 39.

²⁰⁸ Kommunal- og arbeidsdepartementet, Miljøverndepartementet. "Rundskriv H-7/97 om endringer av estetikkbestemmelser i plan- og bygningsloven." Oslo: Kommunal- og arbeidsdepartementet, Miljøverndepartementet, 1997. pp. 11–14.

²⁰⁹ Stafne, Anne Lise. "Opplæringsprogram for kommunene. Estetik i lovens navn." *Aftenposten*, 18 November 1997.

²¹⁰ Stafne, Anne Lise. "Refs til arkitektene. – En for taus yrkesgruppe." *Aftenposten*, 26 October 1997.

The case study of “Villa 3CM” cannot be looked upon as representative of how a dialogue between a professional architect and a lay client develops, but the problems they face in envisioning the three-dimensional environment from two-dimensional representations are common. Future architects develop their capacity to give visual form to their ideas by developing their visual imagination and by gaining knowledge of proportion, scaling and form. Drawing is for the architect a two-dimensional representation of a three-dimensional building, not yet built, and the architect has a repertoire of different kinds of drawings, which serve different purposes. Drawing is a basic central skill in architectural education, so when the focus is on participation in the planning processes of the built environment, it seems essential to concentrate on drawing. Even if computers have a central position in most architectural offices today, hand drawing is not out-of-date. The computer has its advantages and disadvantages, and so has hand drawing. It was not the pencils that were thrown out of the architect’s office when computers entered the arena, it was the huge drawing tables.

We know from the newspaper debate that Norwegians are interested in architecture, but the debates often end up in different camps, which tends to lead to a political incapacity to act. The discussion about the “Tullinløkka” site in the centre of Oslo has been going on for 150 years,²¹¹ and the discussion involves a lot of people, not only architects and politicians. In 1997 two alternative buildings were in focus for the discussion: the modern winner solution from Telje-Torp-Aasen and the “Pantheon look-a-like” solution called the *Hall of Edward Munch* by Petter Olsen’s supporters. In 1997 a professional opinion-surveying firm was engaged by Petter Olsen’s group to find out which of these two alternatives the inhabitants of Oslo wanted at Tullinløkka. They concluded that the “people” wanted the “Pantheon look-a-like” solution.²¹² An unfortunate polarisation between architects and “people” and between new buildings

²¹¹ Statsbygg. “Tullinløkka – de mange planers parkeringsplass. Prosjektnytt. Særtrykk fra Bygg & Rom 3/1997/2000.” Oslo, 1997.

²¹² Fifty-eight percent wanted the “Pantheon look-a-like” solution, 23% wanted the “modernist” solution, 5.5% wanted neither solution and 13.5% had no opinion. Arneberg, Arnstein. “Folkets mening om Tullinløkka uten relevans?” *Aftenposten*, 18 November 1997.

and old can be intensified if this continues, and it can seriously jeopardise town planning and localisation of important buildings.

It is not hard to understand that architects might regard political and public participation in decision-making processes as an unfortunate but necessary evil, and that the architect would wish to keep laymen out of the design process as long as possible. And it is not difficult to understand that the attitude of Howard Roark in Ayn Rand's *The Fountainhead* from 1947 is still alive among architects. Rand created a fictional picture of a brilliant young architect, Howard Roark, who got sued by his client, Hopton Stoddard, for not building the temple he ordered. The temple was to have been a non-sectarian cathedral symbolising the spirit of human faith, but the architect made something more like a warehouse.²¹³ The story glamorises the myth that collaboration with the client leads to mediocrity, and some of Howard Roark's statements in his fight for modernity and struggle against ancient architectural styles have become famous. He says:

*I don't intend to build in order to serve or help anyone. I don't intend to build in order to have clients. I intend to have clients in order to build.*²¹⁴

Dana Cuff, Judith Blau and Leonard Eaton have made valuable studies of the relationship between architect and client, yet none of them have given much attention to the client's capacity and education in relation to participation in a process based on pictorial representation of space. I doubt that the client's insufficient competency for making decisions about future buildings on the basis of pictorial representations is an unknown problem for architects and architectural researchers. So why has this topic such little research interest? After all, the client plays a primary role by financing the buildings and thereby making the final decision, whether or not the drawings and plans are brought further into real buildings.

Since research within art, design and art education is in its infancy in Norway, we do not have sufficient knowledge to implement all of the intentions of Culture in Our Time (*Kultur i tiden*), such as strengthening

²¹³ Rand, Ayn. *The Fountainhead*. London: Harper Collins Publishers, 1972. pp. 326–327.

²¹⁴ *Ibid.*, p. 18.

art education and public awareness of design and environmental development. However, research and literature concerning the architectural design process are available, although rather little research has been done on the layman client's qualifications to participate in that process. I have not as yet seen any study involving the compulsory schools preparation for public participation when developing our built environment. Perhaps the compulsory school is unable to give this education, and perhaps the school system is not prepared for the challenge. Perhaps architects should offer courses to compulsory school and educate future clients in connection to concrete building projects in their local environment?

SUMMARY PART 3

In the case study "Villa 3CM", the verbal communication between the architect and the clients was good, and both the clients and the architect are satisfied with the finished dwelling. The architect has listened carefully to the clients' wishes and he has been able to transfer their ideas to drawings and finally to the finished dwelling. The architect made sketches while talking to the clients at the meetings, using his pencil every time there was a request for visualisation. But the male client admitted that he did not understand some of these sketches at all, and it was especially the section drawings that caused him problems. Both clients credit the architect's skills and ability to give visual form to their ideas as very important for the understanding of the drawings. The clients did not make any drawings throughout the design process, except for one in the very beginning of the process. Neither of the clients had happy experiences from drawing in the compulsory school and they both had regrets at not having developed their drawing ability.

The clients had not developed any special capacity for expressing themselves through drawings in compulsory education, but they had developed some understanding of architectural drawings. In "Villa 3CM" the clients were educated in-action through the architect's careful advice, and this education in-action carried them favourably through the process. This was made possible because of a reflective architect who listened to and visualised the clients' wishes and who had a positive attitude to the clients' participation in the process. From such a reflection it might be easy to conclude that architects should continue to educate the clients in every single building project instead of educating the population in the

compulsory school. But the problem is that this exclusive situation just reaches a small percentage of the population, and it leaves the lay client vulnerable in case of disagreement with the architect.

There is no doubt that an educated client, whether the education is received in action together with an architect or in compulsory school, is qualified to understand drawings and to participate in a more constructive way than without this knowledge. This is a challenge both to the compulsory school, which reaches all citizens, and to architectural schools where architects are trained for the future. Remarkably little attention has been paid to the education of laymen in studies of architectural processes with a focus on the client. A possible mistrust of what teachers in compulsory school can teach pupils about architecture and architectural drawings might be the cause, and is without doubt relevant. But it is unwise to ignore the potentials and possibilities for layman education in architecture and architectural drawings in compulsory school. The case study of “Villa 3CM” shows that laymen learn through a planning and building process in collaboration with a skilful architect. Perhaps this is the way to educate clients for active participation in building processes. There are, however, risks connected to the strategy of having the architect educate the adult client while in action with a project. The situation might give the architect too much influence. If the client is unfamiliar with spatial representations he is completely in the pocket of the architect, without any possibilities of discovering or arguing for solutions in case of disagreement. On the other hand, a lay client may have reached a position of power where he or she can ignore any advice from the architect at all. Such a power could be generated by financial or political position.

A good strategy for implementing the intentions in Culture in Our Time (*Kultur i tiden*) about developing public interest in and awareness of architecture and our built environment would be to use the possibilities for education that lie in the public compulsory school. This system entails all juveniles and future clients, politicians, users and neighbours. The development of qualifications for public participation when developing our built environment does not have to be a challenge for the school teachers alone, since each school is free to use its budget to the best attainment for the pupils. Professional architects who have an interest in education could therefore be involved in projects in the compulsory

school that would promote the pupils' understanding of architectural drawings and models and their experience of the imaginative transfer from two-dimensional representations to three-dimensional buildings. Such projects are in progress.

Part 4: Reflections on Purposes for Art Education

In Part 2, a contradiction between what different official documents say about the subject *Forming* was uncovered. Culture in Our Time (*Kultur i Tiden*) described *Forming* as a subject with problems and with a need for strengthening, while the official statistics on grade assessments in *Forming* indicated the opposite. Although the study “Draw 92/97” is limited to drawing, it supports the view that *Forming* is a subject with problems. An inadequate framework for the subject in compulsory school cannot be the cause of these problems, as many teachers of *Forming* assert. As discussed in Part 1, the explanation for these conflicting opinions must be sought in conflicting justifications and aims for art education in compulsory school and how these justifications and aims are generated through the teachers’ attitudes and practice. A central question is whether the teaching of cultural conventions in drawing is thought to be a hindrance for the pupil’s creative development or if a mastery of the cultural conventions in drawing is a trampoline for development, democracy and change.

Justification for Drawing in the Compulsory School

Ever since drawing entered the Norwegian school system as a subject in 1889, various reasons for justifying its position in the compulsory school have been put forth. Anders Lysne has described and analysed the

historical foundations for art and craft in Norwegian education.²¹⁵ Drawing has been justified because it was supposed to generate precision and to promote an understanding of plan drawing, which was important for the increasing industry at the turn of the century. After World War II, drawing was justified because it was thought to generate mental growth through self-expression. Drawing was good as therapy, and for developing creativity. It was also to be an implement to becoming a better human being. Positive transference from art to other academic subjects has also been used as an argument. Bennett Reimer has divided arguments for justification for art in education into the following: 1) The claim for functionality, 2) The claim for talent development, 3) The claims of aesthetic education.²¹⁶ There might be something to all these justification arguments, although questions can be raised to them all. Different justifications for teaching drawing have also been merged with various ideas on education in general, from the teaching of right and wrong at the turn of the century to almost no teaching in the seventies. In the nineties the focus was put on the pupil's learning where the role of the teacher is to arrange and organise for the learning to take place. The theoretical justification for drawing might not have much influence on everyday life at school; it takes a long time for new ideas to be implemented in the school system. And sometimes the formal curriculum is just not implemented at all. The perceived curricula may not match the intentions behind the formal curricula, and consequently the operational curricula and the experiential curricula diverge all over the country. And to make the confusion total, the formal curricula might be in conflict with the common ideas of the ideological curricula. In my experience, teachers in *Forming* teach, or refuse to teach, in relation to what they learned when they themselves attended their teacher training college. And in middle school practice, drawing is often justified by being a necessary practical break in a busy and theoretical day at school.

²¹⁵Lysne, Anders. *Forming i skolen – idé og mål*. Oslo: Gyldendal, 1984.

Lysne, Anders. "Praktisk-estetisk allmenndannelse – historiske hovedtrekk 1860-1960." In *Levende fortid*, edited by Bjarne Bjørndal, Torstein Harbo and Jon Haukaas, 121-133. Oslo: ad Notam Gyldendal, 1991.

²¹⁶Reimer, Bennett. "What Knowledge is of Most Worth in the Arts?" In *Philosophy of Education. Major Themes in the Analytic Tradition. Volume IV. Problems of Educational Content and Practices*, edited by Paul H. Hirst and Patricia White, 145–170. London: Routledge, 1998. pp. 146–150.

The study “Draw 92/97” may indicate that *Forming* is looked upon as a break from all the theory in school, in as much as *Forming* is an elective in teacher training for classroom teachers, and since the subject is not looked upon as serious by many school administrators. The assessments given in *Forming* may indicate an attitude to the subject of there not being anything to achieve from it, apart from affording a practical break. Drawing can also be justified as suitable training for eye–hand co-ordination. Justifying art and drawing as a method of transfer to other academic subjects puts drawing and art into a position as servant to the more important subjects at school. Such justifications condemn visualisation as an unimportant skill in this new century. Herbert Read justified art in school as a learning method in his book *Education Through Art*. Also the world-wide organisation, *International Society for Education Through Art (INSEA)*, promotes art as a creative method in education.²¹⁷ Although it is not wrong to promote creative learning in general, it can be so if it is done on behalf of the building of visual capacity. The democratisation of visual tools like computers and television has not made visual knowledge and visual literacy less important than before. The discussion on the purpose and justification of the position drawing has and ought to have in school is a philosophical question, which is also connected to methodological choices.

When new national curricula are being developed, art education, including drawing, runs the risk of losing its position in the national curriculum. In contrast to subjects like languages or mathematics where the justification for a position in the national curriculum is obvious to parents and politicians, the justification for visual art has greater difficulties in being seen and understood. No tradition has been developed for discussing the justification for visual art in the compulsory school in Norway – the tradition has been to *protect* the subject area. But in the United States where there is no national curriculum that guarantees that all pupils will have art on their schedule, the discussions on justification are more frequent. Even if art is optional in the United States, it is offered at a majority of schools. As mentioned earlier, Elliot Eisner made a

²¹⁷ From INSEAs own folder: “INSEA has as its main purpose the encouragement and advancement of creative education through art and crafts in all countries and the promotion of international understanding.”

contribution to the discussion on justification for art in the curriculum at the annual *National Art Education Association (NAEA)* conference in 1995. His main argument was that art education had too long focused on how art education promoted results outside the visual field, and not enough effort had been used to promote the importance of skills and knowledge inside the visual field itself. In his study he found no indication to support the notion that art promoted academic achievement in other subjects.²¹⁸ His findings of course disappointed many art teachers who for years had been using such arguments to justify art in school.²¹⁹ And when such arguments come from an insider in the art education field, such as Elliot Eisner, it is difficult to cast the arguments aside as nonsense. If the justification arguments for art are connected with the promotion of skills in other academic subjects, art can easily be elbowed out, for example, if dancing turns out to have a more positive effect on mathematical understanding. Are then visual art, design and visual communication so unimportant in a culture that dance can substitute them?

Anna Lena Lindberg has shown how supporters of the *educational attitude* promote what is desirable and excellent in art and what is not. But a classification of what is right in art and what is not is a complex matter. What Lindberg calls the *charismatic attitude* has in a disguised way also implemented an interpretation of right and wrong, where everyone is free to interpret art in any way they like, until there is an important decision that has to be made. Then the specialist interpretation is the right one. This disguised liberty can also be seen in the interpretation of children's drawing as, for example, Jessica Davis's favouring modernist expression to academic detailing when making judgements about artistic drawing. The academic tradition of teaching elements and principles of design, with light and shade, perspective and colour, has been almost absent from Norwegian teacher training for compulsory school under the guidance and influence of the subject *Forming*. The practising of drawing in the compulsory school seems to be distinguished by the same, even though "Draw 92/97" shows that some teachers do

²¹⁸ Eisner, Elliot W. "Does Experience in the Arts Boost Academic Achievement?" *Art Education* 51, no. 1 (1998): 7–15.

²¹⁹ Lövgren, Staffan. "National Education Association Congress." *Bild i skolan*, no. 4 (1995): 24–26.

teach the cultural conventions of light, shade and perspective. It could be that these teachers have had another kind of education than the one given to classroom teachers, and perhaps they have avoided being affected by the non-intervention strategy in drawing.

As we go into the new millennium with computers, illusions, television and many jobs inside the commercial visual industry, it is relevant to ask if drawing has a justified place in the compulsory school. When a new national curriculum is being developed, *The Norwegian Ministry of Education, Research and Church Affairs (KUF)* listens to the ongoing professional discussion. Subjects without a well-formulated justification may run the risk of being left out, since there are many domains fighting to break into the fortunate society of the compulsory school subjects. In a way it is turning things upside-down to argue for a subject's justification in the compulsory school, it should be the other way around. The collective aims of the nation should be reflected in how the compulsory school is building up the capacity to reach the objectives for the future. What is happening in society outside the school should guide development inside the school, and "Villa 3CM", "Draw 92/97" and the discussion of justification have this perspective. The purpose and content of compulsory school touches upon how education should prepare for democratic participation in our society. The compulsory school and its core subjects are not aims in themselves.

In the following chapter I have decided to focus on what the American art educator Arthur Efland calls the hands-off philosophy. Not that other aspects of art education are unimportant, but this description seems to fit the attitudes to education uncovered in "Draw 92/97", and the hands-off philosophy influences children's and juveniles' ability to visualise their ideas and to participate in democratic discussions when visualisations are involved. And this hands-off attitude probably exerts influence on more than just drawing. I presume that the public attitude to art, design and architecture is generated through the seriousness with which these topics are handled in compulsory school.

The Hands-off Philosophy

“Draw 92/97” does not reflect the formal curriculum, but it does reflect the pupils’ outcome and experiences from *Forming* in school, the practised curriculum. The study is from a period when the teachers of *Forming* are, according to the assessments they give, very well satisfied with what the pupils accomplish in the subject. It is important to keep in mind that *Forming* encompasses more than drawing when the findings in “Draw 92/97” are discussed in relation to assessments and scheduled classes. But why did so many juveniles respond that they had learned almost nothing about drawing at school? Why did some turn to siblings, parents or friends to learn to draw? Were the teachers unable to teach, or had they been taught at teacher training college not to intervene with children’s drawing? Or was non-intervention just a handy and suitable strategy for the teachers who were placed in middle school to teach an “unimportant” subject?

The teacher’s strategy of non-intervention, which Arthur Efland calls the philosophy of hands-off,²²⁰ derived from the Cizek and Lowenfeld heritage of “child art” and self-expression. If the strategy of non-intervention is an established practice for teaching drawing in classroom teacher training programs in Norway, this might explain why teachers are so satisfied with what the pupils accomplish in *Forming*. In the strategy of non-intervention there is nothing for the teacher to teach, for how could the teacher teach anything if the objective is the pupil’s self-expression? And if self-expression is the aim for practising drawing in Norwegian classrooms, it is understandable that teachers should boycott pupils who want to learn the cultural conventions of drawing. It is, however, different if the lack of teaching is caused by the teacher’s lack of ability, or if it is a deliberate choice. But it is even more complicated than that. For even if the teachers wanted to teach drawing, there is still the question of which concept of drawing to teach. And since there is no “correct” way to draw, only different concepts for different contexts, the best way for a teachers to avoid criticism from parents, artists or psychologists might be to choose the strategy of non-intervention and argue that the pupil develops

²²⁰ Efland, Arthur D. *A History of Art Education: Intellectual and Social Currents in Teaching the Visual Arts*. London: Teacher College Press, Columbia University, 1990. p. 198.

“on his own”. And since the child’s drawings developed so fantastically in pre-school years without intervention from adults, why can their drawings not continue to develop into small Picasso-drawings with the same strategy?

“Draw 92/97” shows a dramatic decline in the juvenile’s drawing activity around the age of twelve, so if the strategy of non-intervention functioned for pre-school children, it certainly did not in middle school (ages 10–13). But it is not possible to say that the declining interest in drawing was caused by a lack of drawing skills only; with puberty comes low self-confidence and change in interests. But would their interest in drawing decline so dramatically if their drawing activity were filled with the feeling of mastery and growth from childhood to maturity? And if drawing were looked upon as an important subject in which there was something relevant to learn, and something to earn a living by in adult life, not only as artists but as designers, film-makers or architects? And what happens if the teachers of drawing always praise the pupils’ drawings as good, even if the pupil knows that he has not succeeded in making the drawing look the way he wanted? The result might be that the pupil loses respect for the teacher’s judgement and loses interest in drawing, which might be the opposite of the teacher’s intentions. Another consequence of such a well-intended attitude might be that the juvenile loses interest in art and design, and believes it to be an interest for just a few special pupils. The disparity between the well-meant intentions of the teachers and the long-term consequences for art and design in society seem to be one of the most important issues to discuss within art education.

The non-intervention strategy is often practised along with free assignments, where the pupils can make what they want. Pettersson and Åsén have in their classroom study from drawing activities in Sweden questioned the assumption that all juveniles have equal qualifications to manage “free” drawing assignments, and the assumption that pupils with problems in other subjects would get extra benefit from such “free” and “creative” drawing activities. But they could not find anything that supported that assumption, rather the opposite.²²¹ This could demonstrate

²²¹ Pettersson, Sten och Gunnar Åsén. “Bildundervisningen och det pedagogiska rummet.”

that juveniles from homes with an interest in art are encultured into some of the codes for “free” assignments and solutions. And when these codes are *not* taught, but assumed to be natural, the juveniles from homes without knowledge of those cultural codes are left behind in an unfair game. It seems as if the lack of teaching and lucid assignments favour those already enabled and builds barriers instead of breaking them. The female client in “Villa 3CM” did not feel comfortable in her drawing lessons; neither did the male client. But the architect, who came from a designer family, enjoyed his drawing lessons at school very much.

The “child art” and self-expression movement, based on the modernist artists’ and the psychological researchers’ fascination for the purity in children’s drawing at the beginning of the 1900s, seems to have culminated in art education both in the United Kingdom and in the United States. The glorifying of children’s expressive drawings that had been developed the natural way – uninfluenced by teachers and grownups – has contradicted the development of children’s drawing skills through instruction. But even if the “child art” and self-expression movement seems to have culminated in the United Kingdom and the United States, a descendant paradigm has not yet been formulated. As mentioned earlier, three competing directions were formulated at the 39th Annual Convention for the *National Art Education Association (NAEA)* in Washington, D.C., March 1999. Judith M. Burton presented the first direction,²²² characterised by child-centred learning, in and through the arts, where she pointed out how the “habit of mind”, which is developed in art education, has an important implication on learning in general. This justification is connected to what Elliot Eisner attacked again at the same annual convention in Washington.²²³ Kerry Freedman presented another direction,²²⁴ focusing on the social perspectives on visual culture in a democracy and

Högskolan för lärarutbildning i Stockholm. Institutionen för pedagogik, 1989. pp. 274–275.

²²² Burton, Judith M. “Defining Art Education: Definition I. Child Centered Learning In and Through the Arts: The Question of Transfer.” Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washinton, D.C., 24–28 March 1999.

²²³ Eisner, Elliot. “Does Experience in the Arts Promote Academic Achievement: What Research Says.” Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washington D.C., 24–28 March 1999.

²²⁴ Freedman, Kerry. “Defining Art Education. Definition II. Social Perspectives of Art Education: Teaching Visual Culture in a Democracy.” Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washington D.C., 24–28 March 1999.

its implications on art education. Her perspective on justification for art education has some similarities to my own focus on art education for democratic participation in society. A third direction was presented by Mary Ann Stankiewicz,²²⁵ who focused on four disciplines on which art education was based: art making, art criticism, art history and art aesthetics, also known as *Discipline Based Art Education* (DBAE). The content of DBAE is heavily discussed in the United States, but together these four parts form a good base for the democratic aspects of art education promoted by Kerry Freedman. In the United Kingdom, Peter Abbs has characterised the paradigmatic shifts in British art education by attributing the main influence from 1920 to 1980 to Modernism and Progressivism through the theories of Herbert Read. This paradigm had a powerful hegemony in the sixties and the seventies, and held that teachers were the releasers of the child's innate creativity through acts of self-expression and self-discovery. Peter Abbs says:

*Indeed, the word "self expression" is one of the key concepts of the old model, as is the related notion "child centred".*²²⁶

According to Abbs, the old paradigm set up "self" and "culture" as opposites, and the ongoing debate in the United Kingdom seems to have a much more sympathetic disposition to historic culture and artistic grammar.²²⁷

But why has this attitude, which encourages the juveniles to remain childish in their drawing, been able to achieve such enormous influence? We might go back to the contradiction between nature and culture to find some answers. This could be a sign of our Western culture's contempt for its own tradition, where teachers who indirectly prevent children from learning the cultural conventions in drawing can be looked upon as seeking back to nature. To prefer nature to culture is in opposition to the basic idea of education, and that is the salient point. The strategy of

²²⁵ Stankiewicz, Mary Ann. "Defining Art Education III. Discipline and the Future of Art Education." Paper presented at the 39th Annual Convention of the National Art Education Association (NAEA), Washington D.C., 24–28 March 1999.

²²⁶ Abbs, Peter. "The New Paradigm in British Arts Education." *Journal of Aesthetic Education* 30,

no. 1 (1996): 63–72. p. 66.

²²⁷ *Ibid.*, pp. 69–70.

protecting children from education in art might be a good strategy if the aim of the subject is therapy and a recreational break. But not only those who support Lowenfeld can practise the strategy of non-intervention, even teachers who support Gombrich's theory on how pictures are influenced by culture can follow the non-intervention strategy without problems. This strategy allows the mass media to be the models instead of offering the juveniles the option to master different drawing concepts from which they can choose what best fits their purposes in a given context. With a strategy that is based upon a disregard for drawing instruction, there is really no need for teacher training in drawing – only a nice assistant to hand out paper and pencils and encourage the activity. The British philosopher David Best discusses the consequences of the art teacher's strategy when influenced by free-expression, since their notion of free-expression is antagonistic to education. He says:

*I once heard a Senior Primary Adviser, talking to a large group of teachers, emphasise that, in art, a teacher must never intervene in a child's work. This is a classic example of the extreme "free expression" doctrinaire subjectivism which is so harmful. For how on earth can the notion of education in art be justified at all if the teacher must never intervene? On this view, there is no justification whatsoever for employing arts teachers. Yet, almost unbelievably, arts educators themselves proclaim the subjectivist doctrine.*²²⁸

Best continues:

*To refuse to intervene is to refuse to educate.*²²⁹

But the scenario does not have to be "black or white" with a consistent choice between culture and nature. Just as the architect uses different genres when representing a building, art education in the compulsory school must make room for diversity in drawing. Some kinds of drawings have to be clear and understandable, others can be personal and even private. Inside the art world there is an ongoing discussion on style, such as the one on figurative contra non-figurative art at *Statens Kunstakademi*

²²⁸ Best, David. *The Rationality of Feeling: Understanding The Arts in Education..* London: The Falmer Press, 1992. p. 75.

²²⁹ *Ibid.*, p. 76.

(SKA) from 1994 to 1997. This discussion indicates an aspiration to define what is a desirable style and what is not. Of course, it also carries implications of power and influence in the art world, but it does open for a rethinking of fine art. Is it an appropriate source of justification arguments for the teaching of art in school? And when the focus in the art world is moved away from the artwork to the philosophy behind, then the question is further actualised. It might be more appropriate to generate justification arguments from the field of design. This does not mean that the innovative power of art is excluded, since that power also resides within design. Design has a tradition of using different concepts of visualisation related to purposes and aims, and thereby has advantages over fine art. The choosing of an appropriate concept in drawing is always connected to its aims and purposes, and the pupil who has built up a repertoire in drawing and visualisation has advantages over those who have not. No concept of drawing should be evaluated by the criteria from another concept, but only in relation to formulated purposes and framework.

It is not difficult to understand the teachers well-intended desire to preserve the joy and pleasure children experience in drawing activities when they enter school as “pure” and uneducated and to take care of this joy by preserving nature and keeping culture at a distance. This seems to have been a strategy for drawing in middle school for many years, and here Norway might be special. Lowenfeld’s theory has had an enormous influence on Norwegian teacher training from the seventies, and he was the great authority when I entered classroom teacher training college in 1972. We were told not to intervene with the children’s drawing, only to encourage them to keep on creating. But this might not have been the attitude of parents, friends, and siblings who had not been encultured into the philosophy of hands-off at teacher training colleges.

The question is whether pupils and teachers need any education in art at all? And if the answer to this is yes, then the next question is what this education should encompass in order to reach the present goals for art education in the compulsory school. Drawing is not just for fun or relaxed entertainment, even if that part has its justified position. Drawing develops visual literacy; the ability for visual communication and the power of visual imagination, which are all crucial now that an increasing number of decisions in society are being made on the basis of pictorial representations.

Generating a Visual Repertoire

We cannot know for certain that spatial representation in drawing develops the power of visual imagination of space. But the architect has acquired the ability to imagine a three-dimensional space from a two-dimensional representation through his architectural education where drawing is basic. The architect has also developed skills of visual communication based on both two- and three-dimensional representations. It could have been something else that developed the architect's power of spatial imagination – perhaps it was his capacity for dancing and climbing in trees that developed his spatial intelligence. But I shall continue to believe that drawing develops the capability for visual communication until someone convinces me that drawing is an *unsuitable* implement for developing these skills.

If the juveniles are to develop skills in space, dimensions and scaling in the compulsory school the teachers has to develop an understanding for why this is important, and how this can be implemented. I think Leslie Cunliff's two different approaches to drawing²³⁰ can be used to discuss how juveniles can develop spatial sensitivity by drawing. The first notion he calls *from world to mind*. It includes observational and memory drawing, and in this notion I include both the concepts of rendering the visible world as it appears and rendering projections of the world as we know it to be. His second notion is *from mind to world*, which includes design, visual shaping of ideas and the solving of visual problems. The architect uses both notions, taking what is appropriate in each situation. The rendering of an existing room or a house serves the purpose of building the capability for later situations where the architect will try to visualise what a building not yet constructed will look like. The visible world is indeed a feedback on spatial relations. These two notions supplement and nourish each other, and for the architect it develops the sensitivity of imagining visual space within a framework. Learning to draw is to “go back and forth”, to conceptualise from the three-dimensional world in order to be able to reverse the concept, from two-dimensional pictures to imagine the three-dimensional world.

²³⁰ Cunliffe, Leslie. “Art and World View: Escaping the Formalist Labyrinth.” *Journal of Art and Design Education* 15, no. 3 (1996): 309–326.

I think that the main conflict in drawing didactics in middle school (ages 10–13) is between those who mean that there is something to teach in drawing and those who mean there is nothing to teach. But learning can, of course, take place without organised teaching, and commercial industry can easily be the main source of cultural education. The absence of instruction in middle school just leaves the influence to somebody else. In “Draw 92/97” juveniles seemed turn to others when their teachers neglected to enculture them into the different drawing conceptions of our Western tradition. But drawing is more than just space and proportions, it is also style and taste, and if this is neglected in the same way, there are strong forces outside of school who are eager to teach the young and direct their meanings, values, taste and attitudes. Commercial influences have commercial intentions and it is not surprising that commercial “catalogue-house” producers have an 80 to 90% share of the Norwegian housing market. They have cared for the customer and they have influenced and taught the customer to like and buy their products. In the same way that drawing teachers neglect teaching drawing and style, local authorities may neglect to use their power to lead when handling our built environment. It is not possible to say that this would not have happened if the politicians had had drawing in school. My point is that these signals of negligence from art teachers also promote a negligent attitude to the importance of visual symbols to the cultural identity of a nation. Pupils have a great interest in visualising themselves through garments, hairstyle, make-up and piercing, but that does not have so much to do with two-dimensional representations, it has to do with artefacts and symbols. The youngsters who meet an evasive teacher, who says that everything is good, even when the pupils tease him, will lose respect for visual culture, and commercial interests will take over as his mentor.

The art education debate in the United Kingdom and the United States has been going on in their research journals,²³¹ but the paradigm for the future has not yet been formulated. Such research journals do not exist in the Nordic countries, and no organised debate on a research level concerning the shifting paradigms of art education is visible.

²³¹ In the United States: *Studies in Art Education, Journal of Aesthetic Education and Visual Art Research*. In Great Britain: *Journal of Art & Design Education*.

The object of education is to involve the coming generation in our common culture, not only to reproduce it, but also to know the culture in order to enrich it and develop it. This is perhaps obvious for subjects like science, language, mathematics and social science, but it has indeed not been obvious for the subject *Forming*. Visual culture is a part of our everyday life, but the youngsters' self-confidence and repertoire to visualise their ideas and concepts could be better. Dennie Wolf and Martha Davis Perry, who were both involved in Project Zero at Harvard University, have emphasised the development of drawing skills and a visual repertoire thus:

*...drawing skills might be understood as a process of generating a repertoire of visual languages and requiring a keen sensitivity to when each is appropriate.*²³²

If the aim and justification for drawing in school is to generate a visual repertoire it should open up for diversity instead of just right or wrong, even if there must be rules for different graphic systems in order to serve as clear visual communication. Hopefully the capacity to handle a repertoire will open up for participation instead of passivity.

²³² Wolf, Dennie and Martha Davis Perry. "From Endpoints to Repertoires: Some New Conclusions about Drawing Development." *Journal of Aesthetic Education* 22, no. 1 (1988): 17–34. p. 18.

Conclusions

Many important decisions within engineering, medicine, meteorology and research are made on the basis of pictorial representations, and professionals who have been educated for this purpose make most of these decisions. But when our built environment is planned and developed through the design of homes and official buildings, lay clients, users and politicians are involved in the decision-making process, sometimes even without a professional architect present. Politicians and clients can decide to ignore advice from professional architects as long as dimensioning and utilisation is kept within the given frames. One could expect that the compulsory school would prepare the population for the obligations and responsibility given to them by our democratic system, as it is for reading and writing. There are, however, indications of the opposite.

It is not difficult to learn the symbols for doors and windows in architectural drawings, but to imagine the scale of a three-dimensional building on the basis of plan and elevation drawings is quite another thing, as they are abstract representations of space. But even if a building project is presented through perspective drawing, axonometric illusions or virtual reality, there is still the question of spatial imagination and the transfer of scale. When reading an architectural drawing the imaginative transfer goes from a two-dimensional representation to a three-dimensional imagination. The act of drawing is the opposite transfer; a three-dimensional imagination is transferred, or drawn, as a two-dimensional representation, a drawing. The activity of drawing trains this transference of scale and proportions from the world to the paper, where the world is a feedback for the drawing. It generates important skills for the understanding of representations and what they represent. These skills can also be used conversely, transferring an idea to a two-dimensional

representation, and this capacity for making imagination visible is important for anyone who wants to promote their ideas visually. Drawing seems to be an applicable strategy to understand scaling and proportions, and to build capacity for visualising ideas, but to build these capacities it is hardly enough to say: “Draw what you like,” to the youngsters in middle school. This was a comment often given by the juveniles in “Draw 92/97” when asked about experiences with drawing at school. And it has been interesting to examine the skills the juveniles have achieved from their drawing lessons in the compulsory school as a basis for a discussion on public participation when developing our built environment.

Almost all children enter the compulsory school with an enthusiasm for drawing and an ability to communicate through drawings, and since *Forming* has had as many scheduled core lessons in the compulsory school as mathematics through the period studied, it is relevant to expect some development. But the development in the youngsters’ drawings from the age of eight to the age of thirteen is seen first of all through the increasing use of details. From the age of twelve there was a dramatic decline in drawing activity, especially on the part of the boys, and by the age of thirteen astonishingly many said that they had learned nothing or almost nothing about drawing at school. Of those who seemed to master some of the cultural conceptions of plan, elevation and linear perspective, many mentioned that they had learned to draw from parents, acquaintances and siblings. Some juveniles express unsolicited that they would like to learn more about drawing at school.

I have uncovered a contradiction between the political efforts to fortify *Forming* in school, as formulated in *Culture in Our Time (Kultur i tiden)*, and the national evaluation system that showed *Forming* to be a subject with high achievement. The political efforts were probably based on the notion that *Forming* was a subject with a weak position in school, despite its position as the fourth largest subject in the National Curriculum. But the assessment statistics showed *Forming* to be a subject in which the teachers were very satisfied with what the pupils accomplished, even though it was the subject where it was most difficult to reach the top and easiest to avoid the lowest score. The contradiction can have different explanations, but we cannot ignore the teacher’s attitude behind the negligence in teaching drawing in middle school, which has its

ideological base in the romantic self-expression movement. This movement, with its foundation in Rousseau and Cizek and brought to Norway after World War II by the books of the very influential Viktor Lowenfeld, has been an area for psychological- and educational research. Psychological- and educational research could dominate the art-education field in part because practitioners of art and design education have not been able to enter the research field. The philosophy and justification for art education in compulsory education is generated through discussions and research, and gradually things change. During the last thirty years, the visual field has developed quickly in our Western society. Both grownups and juveniles conduct themselves in everyday life by making visual choices in connection with images, television, computers, artefacts, clothes, design and architecture. Some choices, like clothes and artefacts, are individual and can be made on the basis of the actual articles. Other choices, like curtains for the office and developing our built environment, concern many people and some of these choices can only be made on the basis of representations.

Culture in Our Time (*Kultur i tiden*) emphasises the importance of public awareness to architecture, and The Working Environment Act (*Arbeidsmiljøloven* § 19) presupposes user participation when developing our built environment. Without a doubt, the clients in the case study “Villa 3CM” developed their capability for understanding architectural drawings during the design process, interacting with the architect, even if the male client said that he did not understand much of the architect’s small sketches during the meetings. In a single case, like “Villa 3CM”, it is possible to let the architect educate the client in process, even if the consequences of the pictorial representation of space first are understood when the house is finished. It is not possible to make general conclusions on the basis of one case, but none of the clients in “Villa 3CM” had developed any significant capacity for visualising their ideas through compulsory school. According to themselves, their experiences from drawing in school were terrible. They might have been victims of what the Swedish researchers Sten Pettersson and Gunnar Åsén found in their study from 1989. The “free” assignments within drawing which were supposed to give equal opportunity to all youngsters, seemed to increase the differences instead of opening up new worlds for those who did not already have access to the cultural codes. The clients of “Villa 3CM” did, however, learn about visual representations through the process, which Donald Schön describes

as learning-in-action, together with the architect both before and after he was engaged. They prepared for their dwelling-house project for about one-and-a-half-years by reading magazines, catalogues and visiting showrooms and show-houses.

When comparing the positive outcome of learning-in-action in “Villa 3CM” with the neglecting attitude to the teaching of drawing in compulsory school, it is easy to conclude that architects should continue to take the responsibility to teach clients and users in action. But such a solution would just include privileged clients with an opportunity to pay for an architect to do the educating, and it would exclude real influence. And when the architect is educator, executor, and the one who gets paid, the uneducated client is totally in the pocket of the architect. Such a situation can lead to marvellous architecture, but it can also be a trap for the client. The studies can indicate that the teachers in the compulsory school were incapable or reluctant, or both, to teach visual skills concerning visual representation of space in school. The consequences of such a conclusion would be that architects in general would have to learn more about didactics and teaching in their own education, and that there would have to be an agreement on the costs for such an education in action. But the question is whether it is the client, the architect or the community who should cover the cost. And if the art teachers in compulsory school deliberately gave up their responsibility to contribute to the development of our visual culture, they would admit that there was nothing to learn about drawing, and its only value being therapy and leisure-time activity. Such an argumentation would not contribute to keep up the existing frameworks for *Forming/Art and Crafts (Kunst og håndverk)* in the Norwegian compulsory school, and the community would probably not continue to pay salaries to teachers if that were unnecessary. The education of art teachers would not be necessary.

But the cultural White Paper from 1992, *Culture in Our Time (Kultur i tiden)*, did not choose this strategy. The opposite was chosen by giving clear signals about strengthening both art, design and architecture in the compulsory school in the new National Curriculum from 1997, and by establishing *Norwegian Form* with a responsibility to raise public discussion and awareness on design, architecture and our built environment. The governmental answer to *Culture in Our Time (Kultur i tiden)* was to strengthen the requirement for aesthetic judgement in the Plan and

Building Regulations (*Plan- og bygningsloven*). Our compulsory school embraces all juveniles in the country for ten years, and its task is to consolidate a common cultural basis as a departure for cultural diversity, tolerance and change. It would be unwise to neglect drawing, design and architecture as a part of this common cultural platform of knowledge, especially since it is *not* neglected in political documents. It would be gambling to delay education of the clients to a “real life” situation where the lay client, user or politicians perhaps have power to *ignore* architectural advice and to make decisions *without* being able to imagine the spatial consequences of decisions. The point is that a climate for mutual respect and understanding between professionals and layman has to be prepared before an eventual conflict. Insight in visual processes and preparation for participation also includes a respect for professional knowledge, the ability to listen to advice and ask critical and qualified questions on the basis of representations.

Democratic participation when developing our built environment should be obvious in a society like our own so based on artefacts and images. I can understand if there is a lack of trust in what the compulsory school can accomplish when taking into consideration the teacher’s possible reluctance to teach pictorial representations through drawing. But the compulsory school can have resources at their disposal to employ specialists, for instant architects and designers with a program, for some projects. Capacity building for public participation when developing our built environment on the basis of pictorial representations is indeed a justification for teaching drawing in the compulsory school. The teaching of drawing should aim to enculture the juveniles to use and understand the culture’s conventions of representation, both the representation of how the world is with plan, elevation and section, and by representing the world the way it appears with overlapping, diminution and linear perspective. Such basic skills and knowledge can be a point of departure for new concepts and development, and it is hard to find arguments that place skills and knowledge as hindrances for creativity. Juveniles who develop a repertoire of drawing conceptions and the capacity to judge when different concepts are appropriate, have an advantage over those children who were told that they had found their artistic style at the age of five, and who then stopped drawing at the age of twelve. The challenge to implement the intentions from Culture in Our Time (*Kultur i tiden*) is now left to school administrators and teachers. They have the

responsibility to implement the new National Curriculum from 1997, where drawing, architecture and design have gained a central position in the new subject *Art and Crafts (Kunst og håndverk)*. Since this new National Curriculum was first introduced in 1997, it has consequently not been a part of this thesis.

There is almost nothing that indicates that the compulsory school has promoted drawing skills and the understanding of pictorial representation of space in the period studied. It is not adequate to blame the formal curricula or the scheduled lessons for this; it is more relevant to seek the explanation in the teacher's attitudes on not teaching children about drawing. I have argued against such a philosophy and promoted arguments for the pupils to develop a visual repertoire, which includes the cultural conceptions of spatial representations in our Western tradition. To build such a capacity is to prepare for participation in a society where the use of visual representation increases. These arguments are just a start for a continuing discussion on the justification for art education in compulsory school in the future.

Cui Bono

My aim has been to gain new knowledge as a base for an academic discussion on the justification for drawing in the compulsory school. I have focused on pre-requisites for democratic participation and the political guidance in *Culture in Our Time (Kultur i tiden)*. The discussion is relevant since lay politicians, inhabitants and users, through Plan and Building Regulations (*Plan- og bygningsloven*) and The Working Environment Act (*Arbeidsmiljøloven* § 19), have a right and obligation to exert influence when our built environment is planned. If these laymen lack the ability to understand the consequences and to formulate changes, the given commission cannot be fulfilled as expected. I find it relevant to connect layman qualifications to compulsory education, since the compulsory school embraces all children and it is the main common arena for cultural development. And, not least, *Forming/Art and Crafts* has a position as the fourth largest core subject in the Norwegian compulsory school.

The academic discussion has had its point of departure in my experiences as a practitioner in the art education field for more than twenty-five years.

The study started with the main focus on children's drawings, which uncovered a declining interest for drawing with increasing age, and it seems as if many teachers omit teaching drawing in the compulsory school. A dilemma was uncovered when the contradiction between the grade assessments given in *Forming* and the political interpretation of the subject was illuminated. The studies and discussion were limited to drawing and pictorial representation of space, since scaling and spatial imagination are so central to architectural drawing and interesting to study in the development of juveniles drawings. There might be other ways of generating the power of spatial imagination and the capacity for visual communication than through drawing, but I have found it adequate to focus on drawing since this is practised in architectural education as well as in compulsory schools.

I have answered the formulated problem of my research by showing that spatial representation seem to have low priority in middle school, and by arguing for the need for visual competence in society and the role of compulsory school in building such capacity for the future. As a consequence of how the two studies "Draw 92/97" and "Villa 3CM" developed, the discussion has been more focused on attitudes and ideas about teaching drawing than I had expected at the beginning. The study of "Draw 92/97" contained such a huge empirical material that it was difficult to choose the right piece to study as a basis for the planned discussion on pictorial representation of space in the juveniles' drawings. I abandoned the idea of analysing all the drawings, and even the idea of limiting the analyses to the drawings from one postal district. My meeting with official statistics on assessments in *Forming* came to turn the study in direction of how assessments might reflect the teacher's attitudes to the teaching of drawing, and also how these attitudes became visible through the youngsters' comments and drawings. I therefore decided to focus on just one question from the questionnaire and focus on certain phenomena which could shed light on what had happened to the juveniles' interest in drawing and subsequent development of drawing skills, in and outside of school. Consequently, only drawings that shed such light are represented in the thesis. The case study of "Villa 3CM" was limited from the start, and was rather uncomplicated to handle. The observations and interviews functioned well, even though it would have been very interesting to videotape the whole communication process. I had that in mind when starting, but I believed it would have a negative influence on the

communication between the architect and his clients. My fears were perhaps unfounded, but for my purposes the observation functioned well, even if some details might have been lost.

I have chosen a research strategy that seemed suitable in the given situation and for the given problem. One of the main challenges has been to connect the discussion from “Draw 92/97” and “Villa 3CM” to the discussion on justification for drawing in compulsory school. But even if my findings did not fit with my pre-conceptions, it was an interesting basis for a discussion; should the basic education of the future lay client take place in the compulsory school, or should the lay client be educated in-action by an architect, as in “Villa 3CM”? As shown in the thesis, there are interesting arguments for both solutions. I can also see aspects that would have been interesting to discuss, for instance if an architect’s collaboration with clients leads to mediocrity. The chosen theory and discussions show that I am an insider in the field of art education, and an outsider in the architectural- and pedagogic field. I have deliberately avoided going into architectural, psychological, pedagogical or socio-logical theory. By choosing theory by E. H. Gombrich and Viktor Lowenfeld as a basis for the discussion on “Draw 92/97” and for the academic discussion on justification for drawing in the compulsory school, two conflicting traditions have been used. The theoretical perspective as to the reflective practitioner from Donald Schön has also been useful to the understanding of learning-in-action and the communication between the layman and the professional that is discussed in “Villa 3CM”.

My contribution to the art education field has been to describe a limited part of art educational practice with a focus on the juvenile’s drawing ability and to lift it up to the most important discussion within any didactics: The question of “Why” we teach a subject. This question is superior to all the other questions within didactics on “What” we teach and “How” we teach. And, I think my contribution to this discussion touches upon a very important aspect, which might have an influence on the practice of the art education field and the respect for visual knowledge in general. It might also influence public awareness of our built environment in general and the attitudes between architects and laymen, whether it be users, politicians or clients.

Further studies

The most important contribution of this thesis is that it is, according to this author, a start for continuance. Within education there is a constant discussion on justification for each subject, which have influence on how new national curricula will give preference to some subjects over others. Subjects with a formulated justification anchored in the public's consciousness will not be brushed aside easily, since the development of national curricula is of political concern for future society. A popularisation of the content of this thesis, as articles in newspapers and magazines, might therefore be an important contribution to the discussion on education and the development of our built environment.

Follow-up "Draw92/97"

The potentials from the empirical data collected in "Draw 92/97" have not been fully exploited in this project. The drawings can be used for the study of other phenomena, for instance connected to gender, motives chosen or how siblings influence each other's drawings. It could also be a comparative study of the drawings from 1992 of those who participate in the follow-up study contra the ones that chose not to participate. It could also be interesting to follow up the same juveniles in 2002 when they have reached the age of eighteen.

Implementation of Art and Crafts (Kunst og håndverk) in L-97

It could be interesting to study the implementation of the new National Curriculum from 1997 (L-97) where the name of the subject was changed from *Forming* to *Art and Crafts (Kunst og håndverk)* and greater emphasis is given to drawing, design and architecture. There is also a possibility to develop programs for how to put the understanding of architectural drawings into school practice and how professional architects and designers might contribute in school projects.

Teacher training – Courses and Literature

To develop art didactic textbooks for students at teacher training might also be an interesting extension, since drawing, design and architecture were strengthened in 1997. It is important for further development to offer courses to teachers in the field, to keep up a dialogue, a momentum for change and development at school level.

User Participation in Official Building Projects

Since user participation is a central topic when developing official buildings, and some of my experiences from “Villa 3CM” can be transferred to such a situation, it would have been interesting to do a study, still with a focus on the layman, of the planning of an official building. Such a study might be interesting in order to improve practical co-operation between the various participants in the building process.

Working on this thesis has strengthened my conviction that compulsory education has a task in developing attitudes to art, design and architecture and to prepare for democratic participation when pictorial representations are involved. But I think the organisation of future education will change, and open up for projects that relate education to real challenges in the local environment and involve professionals at different levels. It is my hope that the developing of co-operation between the compulsory school, designers and architects could contribute to mutual benefit and pleasure.

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OL-Reprise 2: 13-17 February 1992

OL-Reprise 3: 19-23 February 1992

OL-Studio 1: 10-12 February 1992

OL-Studio 2: 13-15 February 1992

OL-Studio 3: 17-18 February 1992

OL-Studio 4: 19-23 February 1992

“Villa 3CM”:

Tape: Interviews

Interview Architect 1 and 2

Interview Male client 1 and 2

Interview Female client 1 and 2

Digital sources:*“Draw 92/97” in QSR NUD.IST:*

OL-Reprise 1

OL-Reprise 2

OL-Reprise 3

OL-Studio 1

OL-Studio 2

OL-Studio 3

OL-Studio 4

Parts of the questionnaire in QSR NUD.IST:

“Villa 3CM” in QSR NUD.IST:

1009970b

1809970b

0711970b

bhfintervju1

bhmintervju1

Aintervju1

2intervjuBHM

2intervjuBHF

2intervjuark

Manual Archive Sources

“Draw 92/97”:

Drawings from 11,317 children from 1992

Drawings from 408 juveniles (each with approximately four drawings)
from 1997

“Villa 3CM”:

Copy of the architect’s drawings

Raw material in print

Information from drawing contest in print from QSR NUD.IST

OL-Reprise 1

OL-Reprise 2

OL-Reprise 3

OL-Studio 1

OL-Studio 2

OL-Studio 3

OL-Studio 4

Observations and interviews in print from QSR NUD.IST :

1009970b

1809970b

0711970b

bhintervju1

bhmintervju1

Aintervju1

2intervjuBHM

2intervjuBHF

2intervjuark

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Appendix



Oslo 04.02.97

Til de foresatte

For fem år siden sendte deres barn inn en tegning til NRKs tegnekonkurranse i forbindelse med OL i Albertville, og vi har sjelden observert en så stor og positiv tegneinteresse blant barn i Norge. Nå vil vi undersøke hvordan det har gått med tegneinteressen, og ca. 2000 av de som var 8 år i 1992 er trukket ut til å bli med i undersøkelsen. Vi håper at dere som foresatte stiller dere positive til å hjelpe oss i dette arbeidet ved å tillate at deres barn blir med i den vedlagte spørre- og tegneundersøkelsen.

Denne undersøkelsen inngår i et samarbeid mellom Høgskolen i Oslo/Avdeling for estetiske fag og Arkitektthøgskolen i Oslo, og er en del i et forskningsprosjekt om barn/ungdom og tegning. Vi sikrer ditt barns anonymitet i tråd med gjeldende regler, og vil kun benytte de innsendte tegningene anonymt i presentasjon av forskningsprosjektet.

Vi vil be ditt barn om å lage tre tegninger:

1. Tegn fra en sportsbegivenhet (Gjerne i forbindelse med VM på ski i Trondheim)
2. Tegn det du ser inne i et rom (Gjerne hjemme hos deg selv eller et annet sted)
3. Tegn hva du vil (Gjerne noe du liker å tegne, eller noe du er opptatt av)


Vi vil også be ditt barn om å svare på noen enkle spørsmål:


1. Hva gjør du på fritiden?
2. Har du lært å tegne på skolen?
3. Liker du fremdeles å tegne?


På hvert spørsmål vil det foreligge noen svaralternativer, der ditt barn blir bedt om å krysse av det som passer (det er mulig å sette mer enn ett kryss). Under hvert spørsmål er det også mulig å utdype svaret med å fortelle litt mer. Slike utfyllende svar er ønskelig, men ikke avgjørende for å sende inn.

Denne gangen er det ingen tegnekonkurranse, nå er det viktigst at ditt barn deltar i undersøkelsen. Alle som sender inn besvarelse i den vedlagte konvolutten innen 3. mars, vil bli med i trekningen av CD-plater. Vi håper på positiv reaksjon på denne henvendelsen, slik at deres barn kan få sende inn tegninger.

Vennlig hilsen


Halina Dunin-Woyseth
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Oslo 04.02.97

HEI

På Høgskolen i Oslo holder vi på med å undersøke tegneinteressen blant barn og unge i Norge. Vi vet at du sendte inn en tegning til NRKs tegnekonkurranse under OL i Albertville for 5 år siden, og nå vil vi be deg om å tegne noen nye tegninger og sende dem til oss. Vi vil også be deg å forteller oss litt om dine tegnevaner på det vedlagte skjemaet. Som takk for at du postlegger brevet innen 3. mars, blir du med i en trekning av nye og aktuelle CD-plater.

Vi vil be deg om å tegne 3 nye tegninger:

1. **Tegn fra en sportsbegivenhet**
(Gjerne i forbindelse med VM på ski i Trondheim)
2. **Tegn det du ser inne i et rom**
(Gjerne hjemme hos deg selv eller et annet sted)
3. **Tegn hva du vil**
(Gjerne noe du liker å tegne, eller noe du er opptatt av)

Du kan bruke de tre blanke A4 arkene som ligger med i dette brevet. Har du annet tegnepapir som du heller vil bruke, så kan du det. Vi vil helst ha A4, for ellers blir det litt problematisk i posten. Husk å skrive navn, alder og klasse bakpå alle tegningene.

Når du er ferdig med tegningene og spørsmålene, legger du dem i den vedlagte konvolutten. Du behøver ikke å sette på frimerke. Husk å postlegge brevet innen 3. mars, så blir du med i trekningen av CD-platene.

Vi håper å få brev fra deg.
LYKKE TIL

Vennlig hilsen



Liv Merete Nielsen
dr. stipendiat

Figure 4a Letter to juveniles, 1997.

Navn:			
Adresse:			
alder:		klasse:	

Svar på spørsmålene nedenfor ved å sette kryss på det som passer. Fortell også litt om dine tegnevaner og hva dere gjør på skolen. Behøver du mer plass, så skriv bakpå dette arket.

	sett kryss på det som passer		
	av og til	ofte	
1. Hva gjør du på fritiden? (Fortell)	jeg tegner	<input type="checkbox"/>	<input type="checkbox"/>
	jeg lager ting	<input type="checkbox"/>	<input type="checkbox"/>
	jeg hører musikk	<input type="checkbox"/>	<input type="checkbox"/>
	jeg spiller musikk	<input type="checkbox"/>	<input type="checkbox"/>
	jeg driver med sport	<input type="checkbox"/>	<input type="checkbox"/>
	jeg driver m/ friluftsliv	<input type="checkbox"/>	<input type="checkbox"/>
	jeg leser og skriver	<input type="checkbox"/>	<input type="checkbox"/>
	jeg ser på TV	<input type="checkbox"/>	<input type="checkbox"/>
	jeg spiller på data	<input type="checkbox"/>	<input type="checkbox"/>
	annet	<input type="checkbox"/>	<input type="checkbox"/>
2. Har du lært å tegne på skolen? (Fortell)	<input type="checkbox"/> jeg har lært mye om tegning på skolen <input type="checkbox"/> jeg har lært noe om tegning på skolen <input type="checkbox"/> jeg har ikke lært noe om tegning på skolen		
3. Liker du fremdeles å tegne? (Fortell)	<input type="checkbox"/> jeg liker å tegne <input type="checkbox"/> jeg liker ikke å tegne		

Dette arket skal du sende tilbake i den vedlagte konvolutten sammen med de tre tegningene. Postlegger du brevet innen 3.mars blir du med i trekningen av CD-plater.

Figure 4b Questionnaire to juveniles, 1997.

Q.S.R. NUD.IST Power version, revision 4.0.
Licensee: Liv Merete Nielsen.

PROJECT: 97TEGN, User Liv Merete Nielsen, 1:52 pm, Dec 21, 1999.

(F 5 1) //Free Nodes/romvirkning/perspektivisk

*** This is 186 documents out of 408, = 46%

This node codes 186 documents.

(F 5 2) //Free Nodes/romvirkning/plan

*** This is 28 documents out of 408, = 6.9%

This node codes 28 documents.

(F 5 3) //Free Nodes/romvirkning/frontal-oppriss

*** This is 172 documents out of 408, = 42%

This node codes 172 documents.

(F 5 6) //Free Nodes/romvirkning/ikke romtegning

*** This is 22 documents out of 408, = 5.4%

This node codes 22 documents.

Figure 7 QSR. NUD.IST Report Node (F51): use overlapping, diminution and/or perspective (F52): use a plan drawing, (F53): use mainly frontal elevation with almost no overlapping and diminution and (F56): no drawing from a room.

Q.S.R. NUD.IST Power version, revision 4.0.
Licensee: Liv Merete Nielsen.

PROJECT: 97TEGN, User Liv Merete Nielsen, 2:55 pm, Dec 21, 1999.

(3) /lært mye på skolen

*** This is 80 documents out of 408, = 20%

This node codes 80 documents.

(4) /lært noe på skolen

*** This is 283 documents out of 408, = 69%

This node codes 283 documents.

(5) /ikke lært på skolen

*** This is 38 documents out of 408, = 9.3%

This node codes 38 documents.

(11) /ikke krysset

*** This is 7 documents out of 408, = 1.7%

This node codes 7 documents.

Figure 8 QSR. NUD.IST Report Node (3): has learned a lot about drawing at school, (4): has learned something about drawing at school, (5): has not learned anything about drawing at school and (11): has not answered the questionnaire.



Figure 9a, b Drawings from a girl (42760f) Both drawings from the Olympic winter games in Albertville 1992 (8 years old).



Figure 9c Drawing from a girl (42760f) From a sports activity (13 years old).

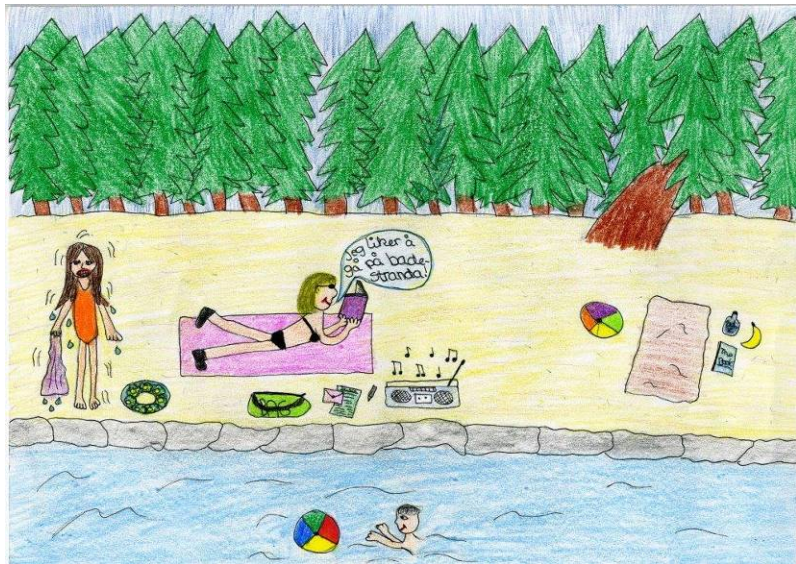


Figure 9d, e Drawings from a girl (42760f) Above: Drawing from a room (13 years old). Below: Drawing with a free topic (13 years old).



Figure 10a, b Drawings from a boy (57800m)
Above: From the Olympic winter games in Albertville, 1992 (8 years old).
Below: From a sports activity (13 years old).

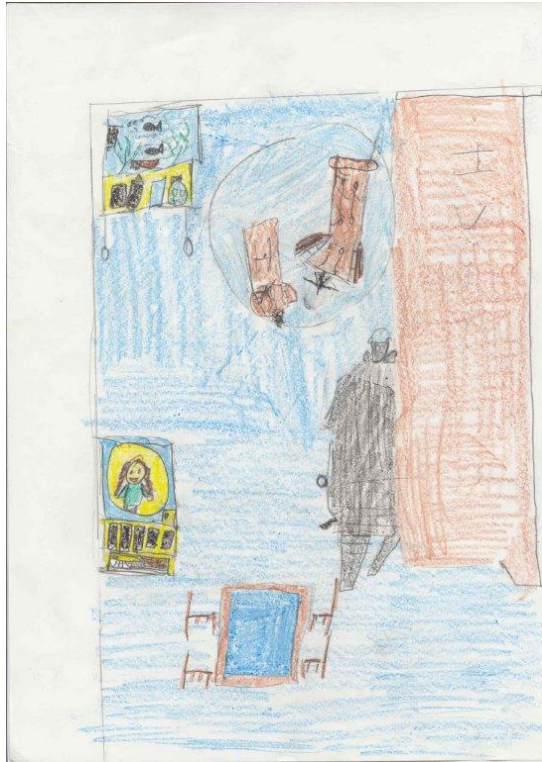


Figure 10c, d Drawings from a boy (57800m) Above: Drawing from a room (13 years old). Below: Drawing with a free topic (13 years old).

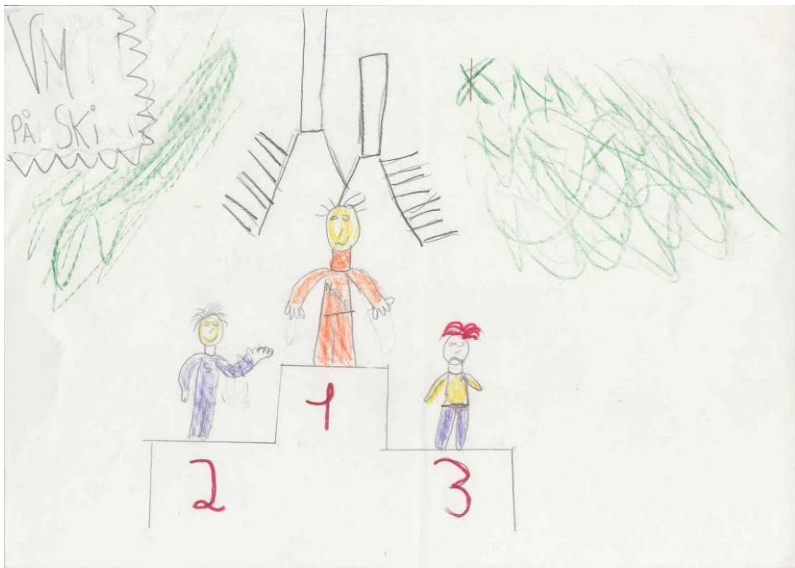


Figure 11a, b Drawings from a girl (82624f)
Above: Drawing from the Olympic winter games (8 years old)
Below: From a sport event (13 years old).

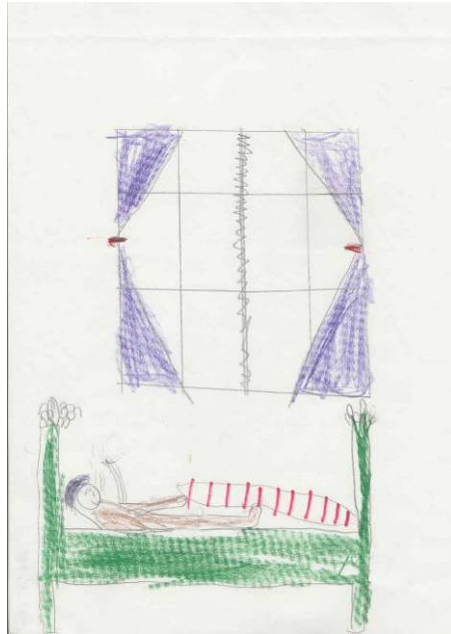


Figure 11c, d Drawings from a girl (82624f) Above: Drawing from a room (13 years old). Below: Drawing with a free topic (13 years old).

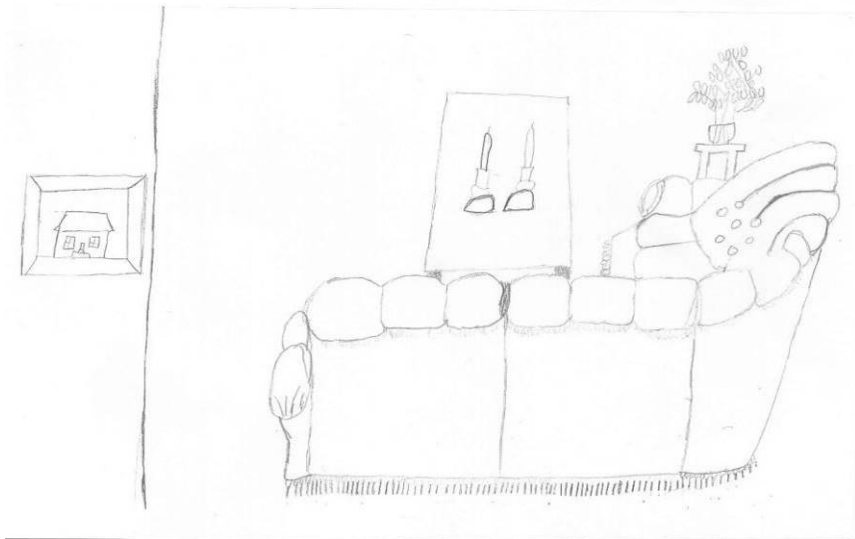


Figure 12 Above: Drawing of a room by a girl (15310f) age thirteen.
Figure 13 Below: Drawing of a room by a boy (52034m) age thirteen.



Figure 14 Above: Drawing of a room by a girl (46860f) age thirteen.
Figure 15 Below: Drawing of a room by a boy (74019m) age thirteen

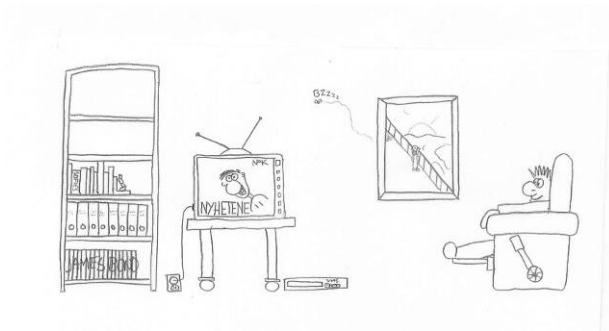
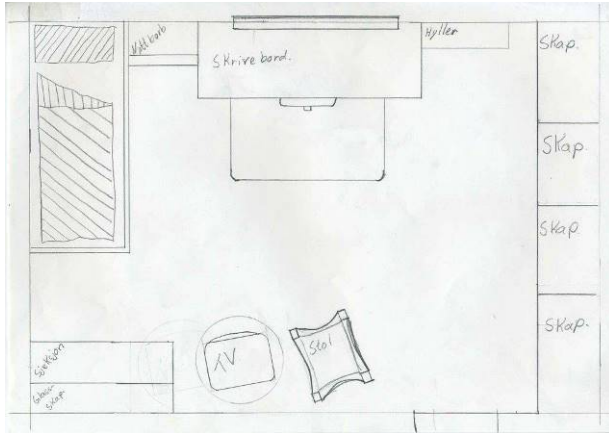


Figure 16 Above: Drawing of a room by a boy (03713m) age thirteen.

Figure 17 Middle: Drawing of a room by a boy (99300m) age thirteen.

Figure 18 Below: Drawing of a room by a girl (56265f) age thirteen.



Figure 19a, b Drawings from a girl (80376f) Above: Drawing from the Olympic winter games (8 years old) Below: From a sport event (13 years old).



Figure 19c, d Drawings from a girl (80376f) Above: Drawing from a room (13 years old). Below: Drawing with a free topic (13 years old).

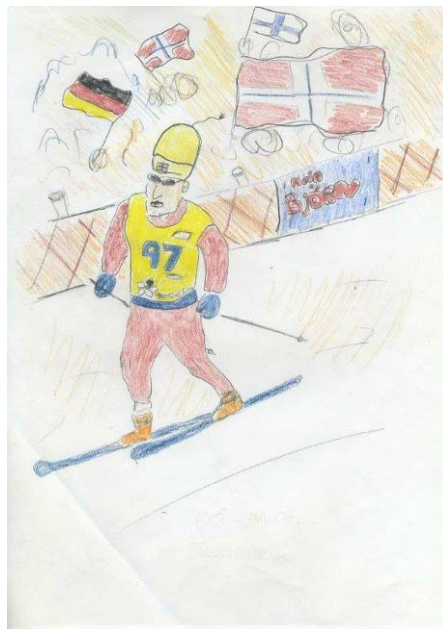


Figure 20a, b Drawings from a boy (40673m)
Above: Drawing from the Olympic winter games (8 years old)
Below: From a sport event (13 years old).

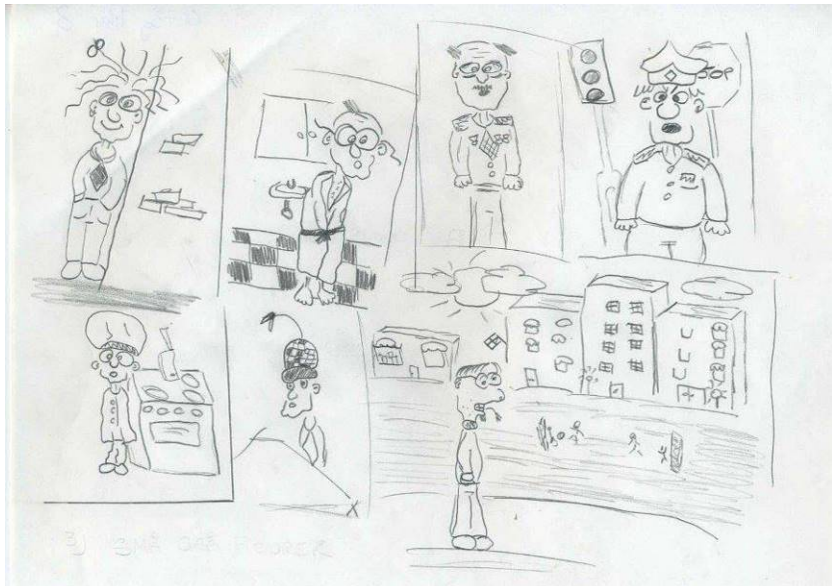
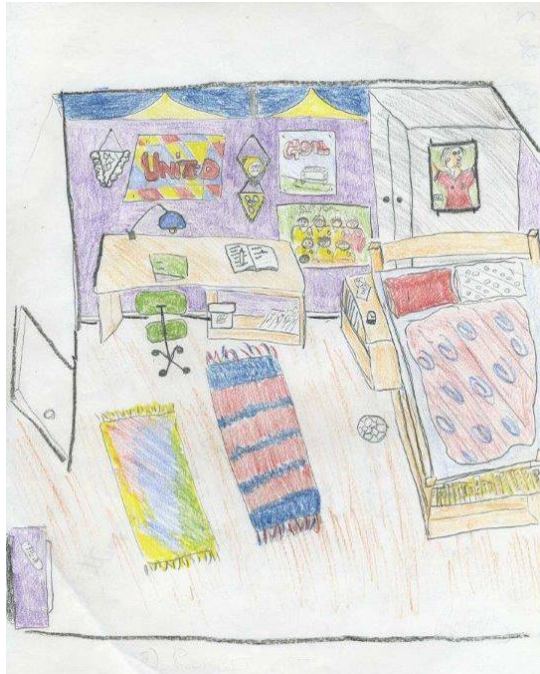


Figure 20c, d Drawings from a boy (40673m) Above: Drawing from a room (13 years old). Below: Drawing with a free topic (13 years old).

Liv Merete Nielsen

Drawing and Spatial Representations

The aim of the thesis is to contribute new knowledge as a basis from which to discuss the development and justification for art education in the compulsory school in Norway. The thesis discusses if compulsory school can prepare youngsters for democratic participation when our built environment is planned and discussed on the basis of spatial representations, by focusing on drawing, visual communication and reflection. Compulsory school reaches all youngsters irrespective of future occupation as politicians, teachers, designers, nurses or directors and their attitudes to art, design and architecture are built through those important years.

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