



Arkitektur- og designhøgskolen i Oslo
The Oslo School of Architecture and Design

DIPLOMA PROGRAM FALL 2018

Diploma candidate: Maja Andresen Osberg

Institute: Architecture

Main supervisor: Bente Kleven

Second supervisor:

External supervisor: Aina Dahle

A handwritten signature in blue ink, which appears to read 'Bente Kleven'.

Title of project:

Church for the deaf

Church for the deaf

Prediploma - spring 2018

Student: Maja A. Osberg

Supervisor: Bente Kleven

External supervisor: Aina Dahle

Institute: Architecture

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Assignement

Over the last years there has been an increasing focus on inclusive architecture and design. At Gallaudet university they, in collaboration with architect Hansel Bauman, developer the DeafSpace project. In Norway there has been seemingly little focus on architecture for deaf and people with hearing loss. At the same time as schools for deaf are closed down, The Deaf church in Norway has grown. It becomes apparent that the deaf community needs a place to gather. The Deaf church is an active part of the deaf community in Norway. They have around 20 000 members, deaf and hearing impaired with their families.

Deafness is defined as total or near total ability to hear. According to Norges Døveforbund (Norways deaf association) there are 5 000 deaf people in Norway, and around 700 000 people with hearing loss.

The Deaf Church in Norway has existed since the 1890s. The ministry in Oslo got its own church in 1894, an existing church for hearing people. Today the Deaf church has eight congregations around the country. The churches in Trondheim, Oslo and Bergen are the only churches built specifically for the deaf church. Trondheim deaf church from 1927, Oslo deaf church from 1974 and Bergen deaf church from 1989. The other congregations either use existing churches or share with a “hearing” congregation. The services in The deaf churches are in Norwegian sign language. They use sign poetry, dance and sign choirs.

A lot has changed since the last church was built. More and more deaf people, especially young, have cochlea implants (CI) or other hearing aids. People with CI are not deaf and not hearing. To ensure the best possible development they should learn both Norwegian and Norwegian sign language. The deaf church is an important arena for using sign language.

People with CI are also more sensitive to noise than hearing people. So the acoustics are important.

None of the churches in use today are optimal. I wish to explore architecture for deaf and how I can design a church for deaf in such a way that the design can also benefit others. I will be looking at universal design guidelines, the existing churches and the DeafSpace project.

After talking to representatives from the different churches. There are some elements that are especially important for the church to function optimally:

- Minimal visual noise
- Space for movement
- The possibility to include the congregation
- AV-equipment
- Wooden floors

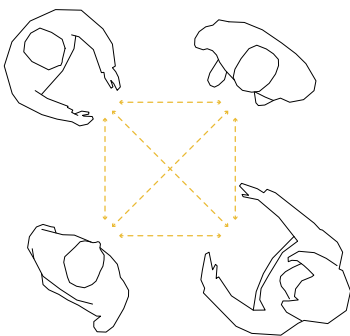
Deaf space

DeafSpace Project was initiated in 2005 by architect Hansel Bauman and Gallaudet University. They developed DeafSpace guidelines with different architectural elements for deaf and hearing impaired experiences in the built environment. The different elements are divided into five categories: acoustics, space and proximity, movement and proximity, light and color and sensory reach.



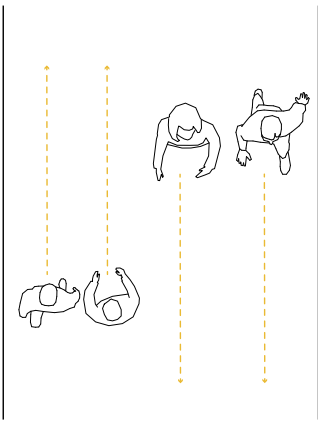
Acoustics

As there are different kinds and degrees of hearing loss in the deaf community, many using cochlea implants or other hearing aids, the acoustics is a vital part of creating good architecture for deaf people. They need to be able to separate relevant sound sources from background noise. It is therefore important to have a short reverberation time inside the church. This limits the material choices for the interior of the church, as smooth and hard materials increase reverberation times. The soundproofing is also important to avoid background noise both from outside the church and between the different rooms inside the church.



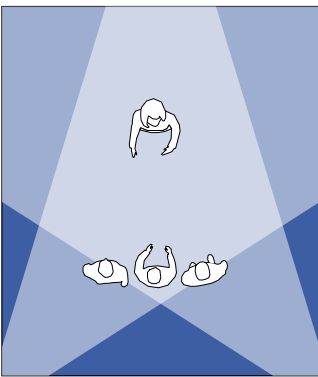
Space and proximity

Sign language requires a distance between the people speaking that is great enough that they can see the entirety of each other's signing space and facial expressions. Which means that a conversation in sign language often requires more space than a spoken conversation. The more people participating in a conversation the more space is required, so that everyone can see everyone. At the same time there is a maximum distance from which one can read sign language, which is about 10 meters. This limits the length of the nave. To make sure the congregation or audience can see the person signing, the choir should also be raised. If the distance between the person signing and parts of the congregation is greater than 10 meters there is a need for visual aid for those sitting in the back.



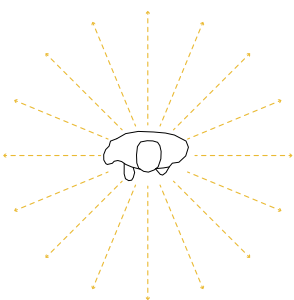
Movement and proximity

Just as when standing still, a conversation in sign language while walking requires more space. Hallways should be wider, so that two and two people can pass each other while signing. Building should be designed so that people can move around easily.



Light and color

Glare, shadows, backlighting and other poor lighting conditions makes visual communication difficult, and can cause loss of concentration and fatigue. And although dramatic lighting and stained glass windows are popular in churches, this is not ideal in a church for deaf. There needs to be a way to control the daylight and good electric lighting. Colors can be used to create contrast. Colors can also, in addition to the texture of the walls, help to avoid glare.



Sensory reach

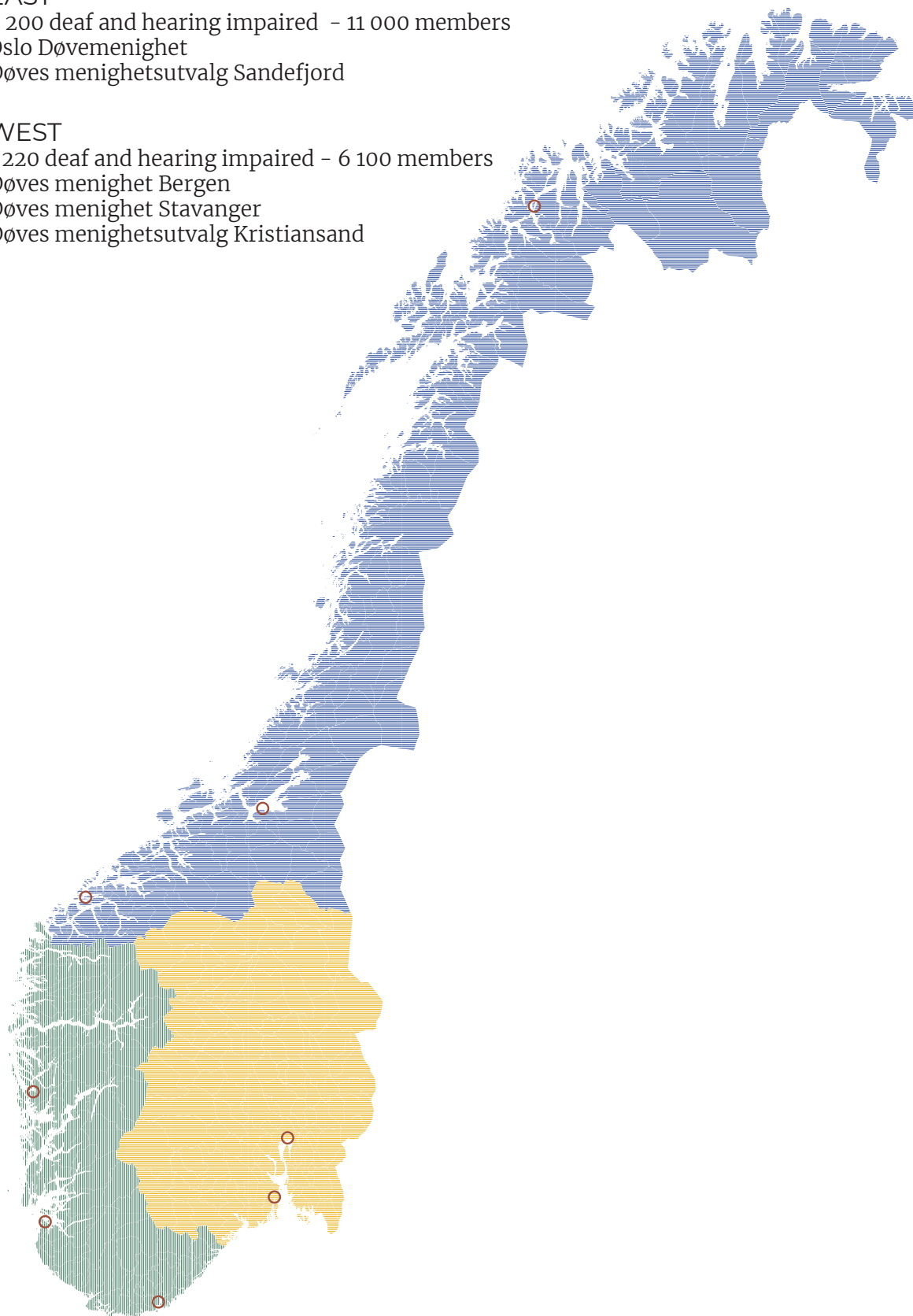
As they are not able to orientate themselves through hearing, deaf people read their surroundings through shadows, vibrations and the movement of others around them. Rooms should be designed so as to facilitate spatial awareness and make it easy to orient themselves.

The Deaf Church - areas of cooperation

NORTH
850 deaf and hearing impaired - 4 250 members
Døves menighet Tromsø
Døves menighet Trondheim
Døves menighet Ålesund

EAST
2 200 deaf and hearing impaired - 11 000 members
Oslo Døvemenighet
Døves menighetsutvalg Sandefjord

WEST
1 220 deaf and hearing impaired - 6 100 members
Døves menighet Bergen
Døves menighet Stavanger
Døves menighetsutvalg Kristiansand



Program

Nave and choir - 250 m²

Congregation room - 150 m²

Kitchen - 20 m²

Vestry - 10 m²

Office - 30 m²

WC - 15 m²

Storage room - 15 m²

Technical room - -m²

Entrance - -m²

Total - 600/700 m²

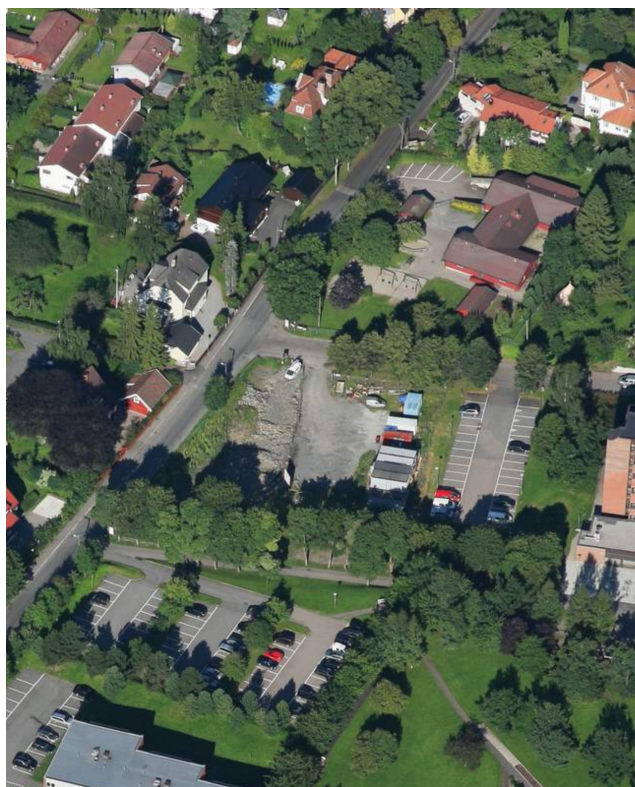
Site



Borgenveien 5, 0370 Oslo
3100 m²

I've chosen the plot because of its centrality and proximity to Diakonhjemmet. The deaf congregation in Oslo is the largest of the deaf congregations, and includes Oslo, Borg and Hamar diocese. Oslo is easily accessible to all and has the largest share of the members.

Diakonhjemmet is an independent foundation within The Church of Norway which works for the inclusion of different groups in society



Historical maps



1937



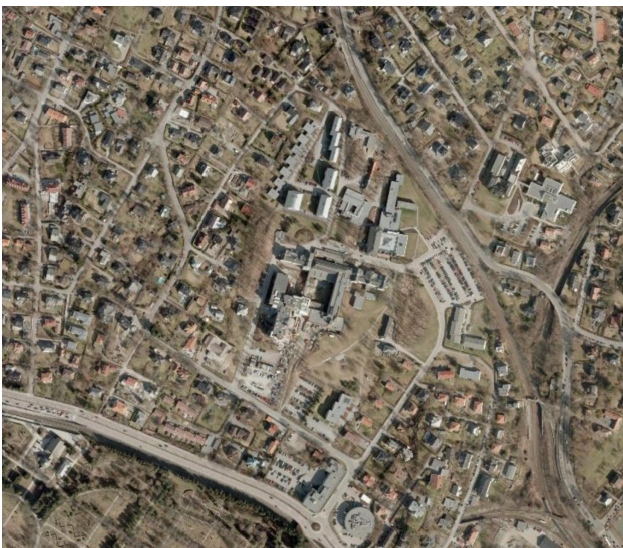
1971



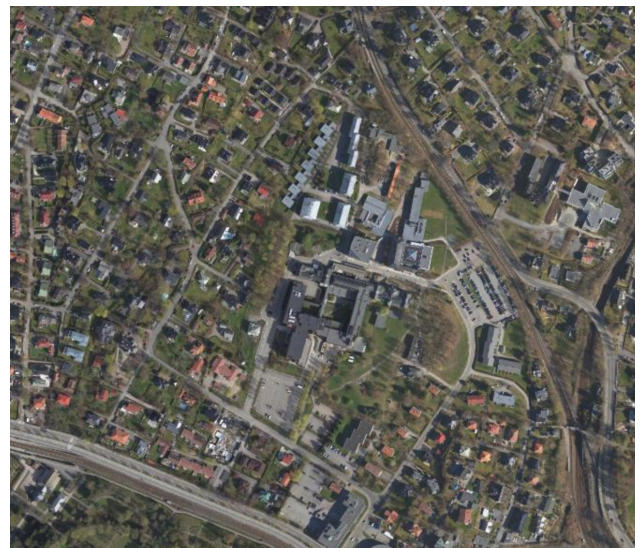
1984



2004

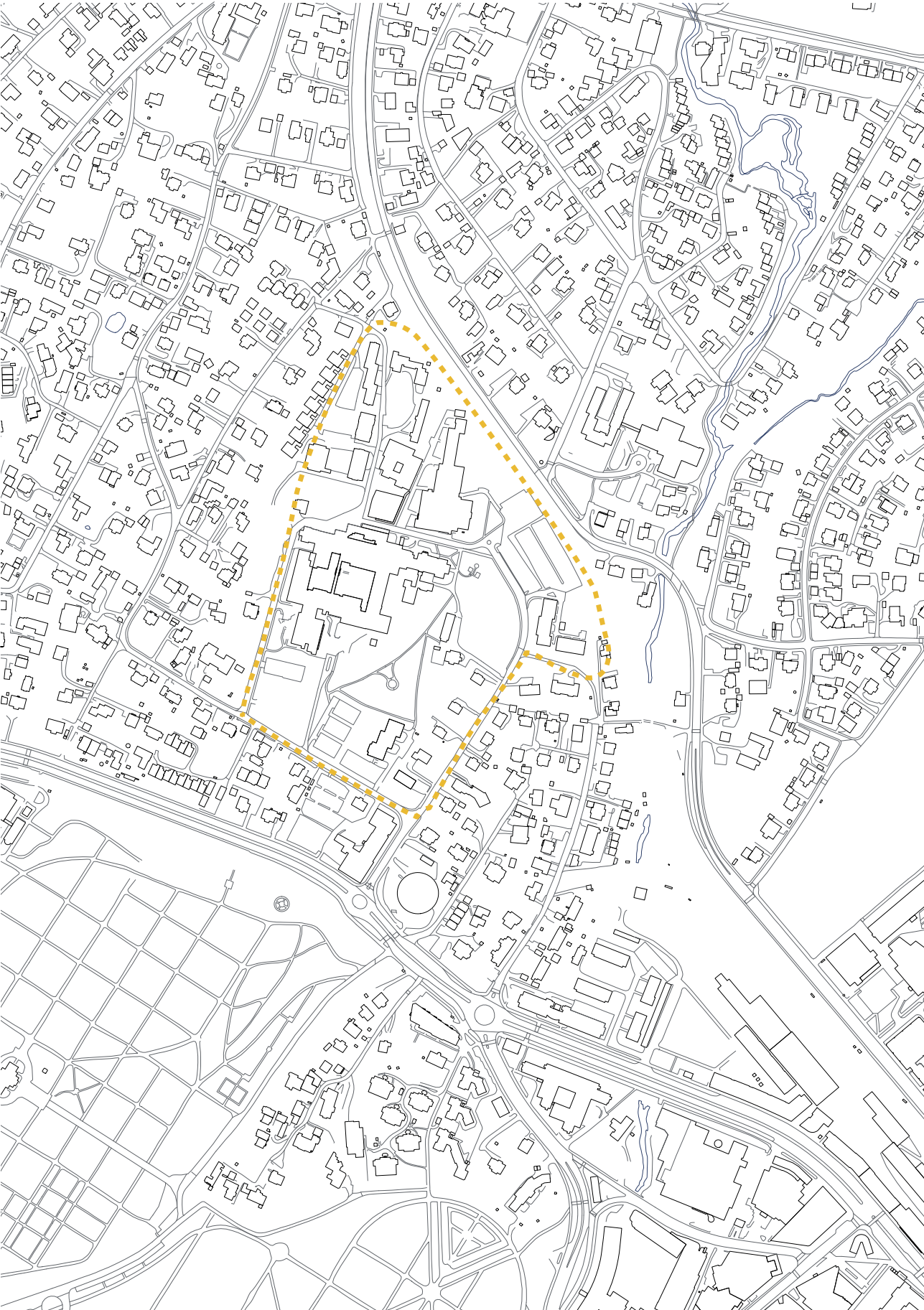


2009



2017

Site



Site



Submitted material

Site plan 1:500 / 1:1000

Site model 1:500

Plans 1:50 / 1:100

Sections 1:50 / 1:100

Details 1:5 / 1:10 / 1:20

Model 1:50

Illustrations

Model photos

Text

Semester plan

August

1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31

Site analysis
Model studies

September

1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30

Concept
Pin-Up

October

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Construction
Plans and sections
Pin-Up

November

1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30

Detailing
Completion
All drawings finished 30th

December

1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

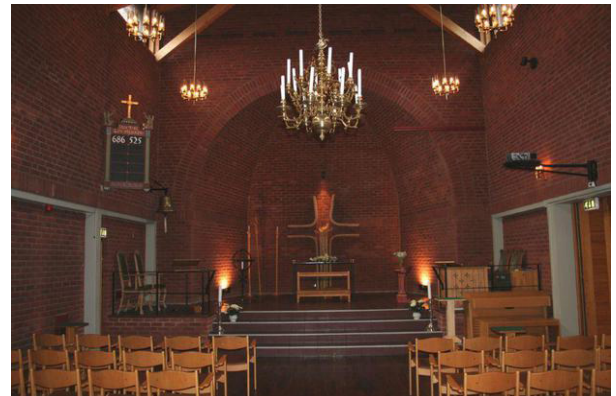
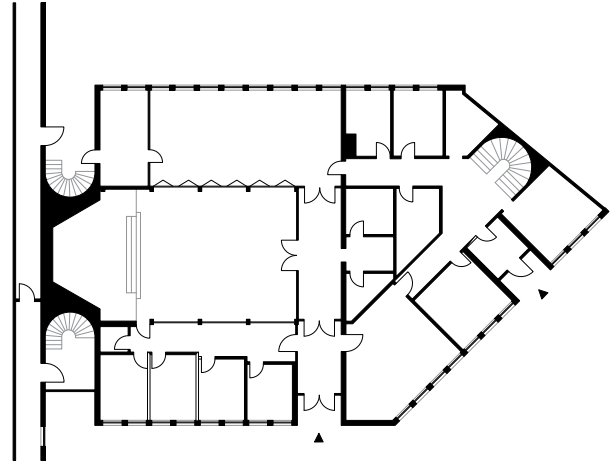
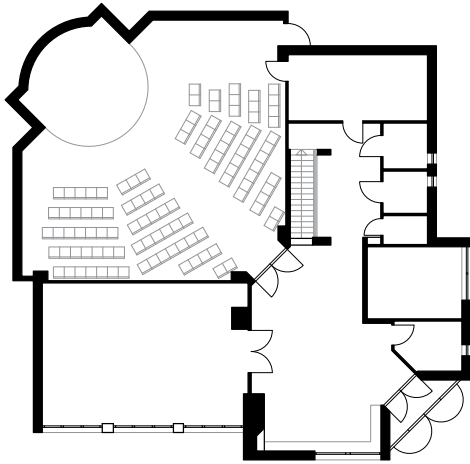
Models

January

1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31

Diploma reviews

Reference projects



Bergen church for the deaf

Completed: 1989

Architect: Atle Strømstad og Lasse Bjørkhaug

The shape works well, but the materials are not ideal. The lighting is insufficient.

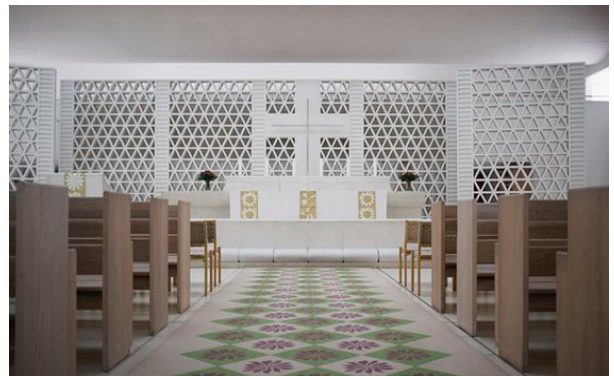
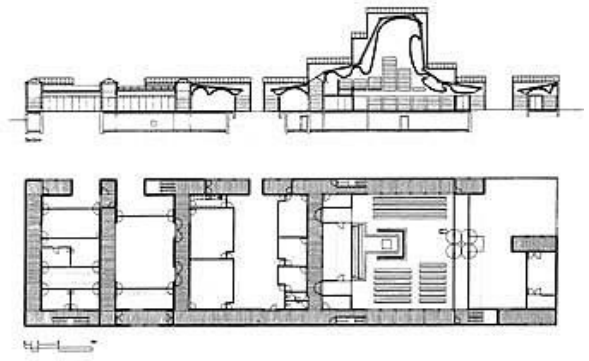
Oslo Church for the deaf

Completed: 1974

Architect: Bernt Heiberg

Originally drawn as an institute for music. The congregation room is too small.

There are too much office space, which is rented out.



Trondheim church for the deaf

Completed: 1927

Architect: Roar Tønseth

The oldest church. The decorated walls make it difficult to use AV equipment. The slanting floor makes the room inflexible.

Bagsværd church

Completed: 1976

Architect: Jørn Utzon

Hearing church in Bagsværd outside of Copenhagen.

Appendix

Interviews with the congregations

1. Er kirken dere bruker tegnet som døvekirke?
2. Hvordan fungerer rommet, hva fungerer bra og hva fungerer dårlig i kirken?
3. Hvilke andre funksjoner enn kirkerommet er det behov for?

Bergen

Veronica Troland - poesimedarbeider og kirketjener

1. Døvekirken i Bergen er tegnet for å være døvekirke, ja!
2. Kirkerommet er vifteformet, og det fungerer fint. Fargen er holdt i hvitt, fungerer fint. Gulvet er i flis, noe som ikke bærer lyd, dette ville vi ha hatt i tre. Lyssettingen er bra, men det skulle ha vært mer lys på presten.
3. Kjøkken, menighetssal, garderobe, sakristi, toaletter (også for rullestolbrukere), kontorer til prest, trosopplærer, kirketjener, organist og daglig leder, aktivitetsrom, vaskrom, 2 – 3 boder, el/vifterom.

Trondheim

Per Walle - døveprest

1. Ja, vår kirke i Trondheim er tegnet som døvekirke. Vi feiret vår kirkes 90-årsjubileum i høst. Kirken er tegnet med henblikk på døves behov – kultur og prioriteringen slik de var forstått på den tiden.
2. Kirkerommet fungerer meget bra. Det har en amfi-form som bedrer synbarheten for de som sitter langt bak i kirken. All kommunikasjon foregår visuelt og da er synbarhet også et avgjørende kriterium på om kirken fungerer. Dette var også et av de viktigste kriteriene da kirken i sin tid ble bygget.

Det neste er lysforholdene. Det ble det også tatt betydelig hensyn til da kirken ble bygget, men de er likevel ikke tilfredsstillende etter dagens målestokk. Det skal derfor installeres ny lysarmatur for bedre belysning med det første. Det visuelle element er også godt ivaretatt med en overdådig billedbruk i kirken. Alt dette virker med til at kirkerommet «fungerer».

På den tiden var det ikke «tegnspråktolker» og det er ikke reflektert inn situasjoner der det er behov for at tolk står foran i kirken eventuelt sammen med prest. Et spørsmål en kan stille seg er hvor lang en døvekirke maksimalt kan være. Når blir avstanden så lang at det ikke er rimelig å forvente at tegnspråk kan avleses?

Vår døvekirke har et hellende gulv og amfi-form som gjør at mye av installasjonene må være foran i kirken. Andre moderne kirker har installasjoner (f. eks lysglobe) bak i kirken. Også i en døvekirke kan en tenke seg en liturgisk utnyttelse av hele kirkerommet. Det er kanskje et savn.

Faste benker gjør fleksibiliteten liten. En rikt dekorert kirke gjør muligheten for skjermer og andre AV-installasjoner vanskeligere for det «kolliderer» med et annet uttrykk (kunsten).

3. Vi har behov for rom for kirkekaffe, aktiviteter for barn og ungdom, undervisningsrom.

Stavanger

Petter Pettersen - daglig leder

1. Nei
2. Kirkerommet vårt er todelt. Fremste del er kirke mens bakerste del har et kjøkken og kafebord. Begge deler fungerer bra, men må tilpasses hver gang til dagens behov. Det betyr mye arbeid med å ordne til rommet.
3. I utgangspunktet har vi ikke behov for flere funksjoner enn de 2 nevnte, men av og til er kirkerommet for lite til våre funksjoner.

Ålesund
Odd Erling Vik Nordbrød - døveprest

1. Døves menighet Ålesund bruker Volsdalen kirke i Ålesund som sin kirke. Den er altså en «hørende kirke», innviet 1974.

2. Kirkerommet er stort, større enn vi trenger. Men samtidig har vi som regel integrerte gudstjenester med hørende menighet. Da sitter de som tilhører vår menighet alle samlet langt framme fordi de vil sitte nært tegnbrukeren for å se best mulig. Dette gjelder også når vi har interne arrangement. Selv om rommet er stort, blir det likevel en opplevelse av nærhet. Tidligere har vi hatt nattverd fra alteret i kirken, mens resten av liturgien har skjedd i fronten av koret. Men nå i det siste har vi flyttet også denne delen av liturgien fram. Dette handler om at det skal være mest mulig synlig. Det har vært for stor avstand tidligere.

3. Vi leier kontorer i Volsdalen menighetshus som ligger vis a vis kirken. Her får vi benytte både stor og liten menighetssal etter behov. Det er den lille vi bruker mest. Her er det dårlig belysning, men rommet skal pusses opp i nær framtid.

Contact

Roar Bredvei - Døveprost

Jon Arnljot Vik - Daglig leder Oslo døvemenighet

Odd Erling Vik Nordbrød - Døveprest Ålesund døvemenighet

Petter Pettersen - Daglig leder Stavan-ger døvemenighet

Per Walle - Døveprest Trondheim døvemenighet

Veronica Troland - Poesimedarbeider og kirketjener Bergen døvemenighet

Sources

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AHO
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