

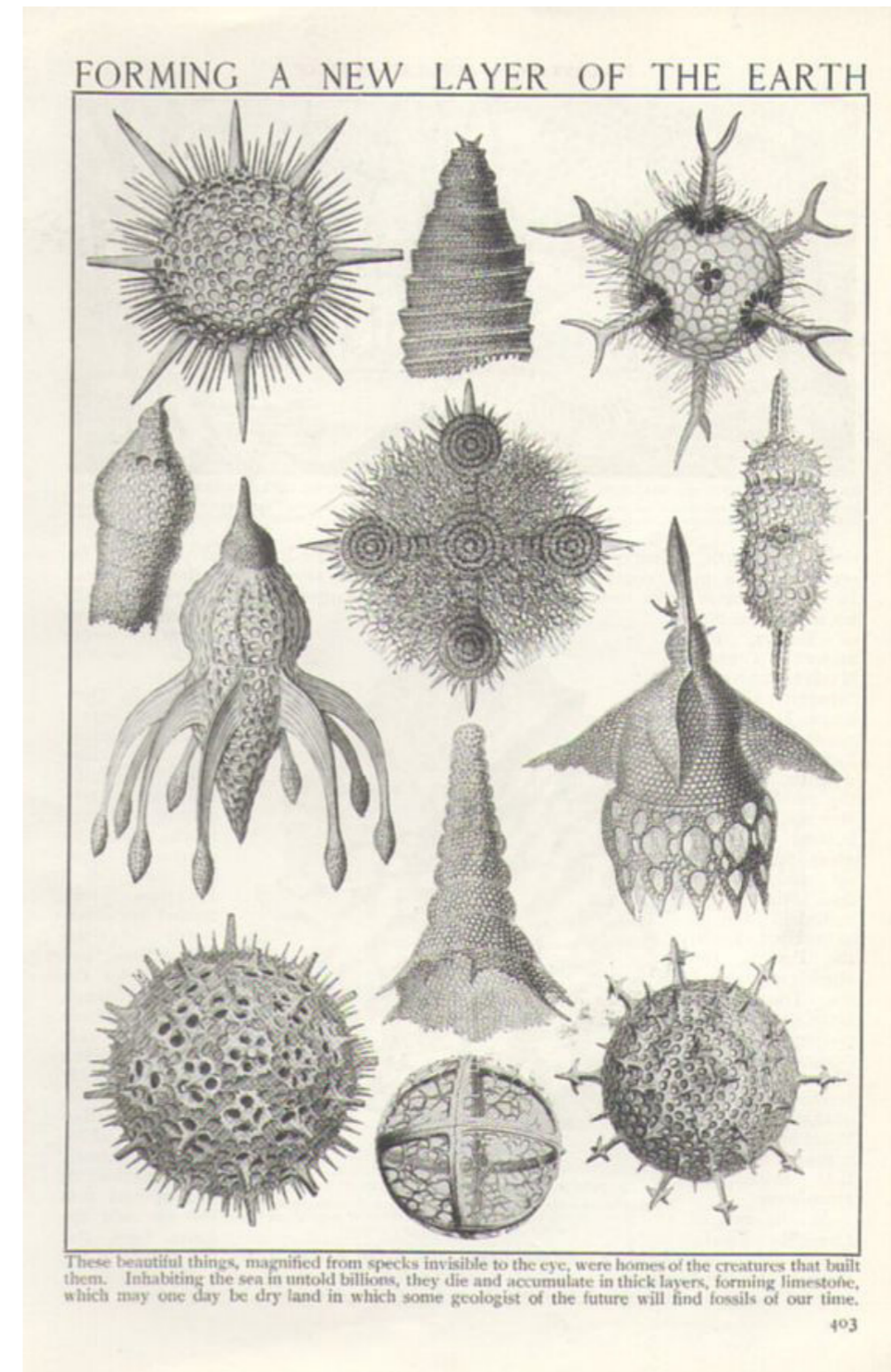
Diploma program Autumn 2017

Candidate: Jan Henrik Remme

Institute: Institute for Architecture

Supervisor: Neven Fuchs

Title: Marine Research Cluster in Bergen



Introduction

As a coastal nation, the Norwegian territories at sea is seven times times the combined landarea, and its coastline extends for over 100.000km. The sea has always been an important source of food, means of transport, and in the past century, a place of exploration and researh. Focused in and around the cities on the western coast, marine research is an industry with growth, and the city of Bergen has one of the largest concentrations of marine research industreis and institutions in Europe.

In 2009 the government initiated a feasibility study for renovating or relocating the Norwegian Institute of Marine Research (IMR), the is the largest centre of marine research in Norway, with its headquarters located in Bergen.

Following further investigations, a draft selection study was initiated, a professional investigation for publicly projected projects of more than NOK 750 million, which should explain the needs of the various institutions and put forward various drafts for how the various problems could solved

In short, three different methods were investigated.

Upgrade of existing buildings, with the possibility of extensions.

New buildings on site with possible demolition.

Total relocation of all businesses.

The situation today is still not settled.



Background

The Institute of Marine Research (IMR) researches marine resources, environment, coastal zone and aquaculture. It is Norway's central oceanographic research institution. The institute has existed since 1900 and currently has around 750 employees, of whom 477 work from the headquarters in Bergen. Their main task is to research in order to advise the public on aquaculture and on ecosystems in the Norwegian coastal zone.

The National Institute of Nutrition and Seafood Research (NIFES) conducts research on the seafood you eat. The institute studies fish nutrition and the effects of fish and seafood consumption on our health. The institute is affiliated to the Ministry of Trade, Industry and Fisheries and advise the authorities, business and industry, and the government administration to support them in their work on ensuring safe and healthy seafood.

NIFES merged with IMR earlier this year.

The Norwegian Directorate of Fisheries (DF) is a Norwegian government agency responsible for fisheries and aquaculture management, under the Ministry of Fisheries and Coastal Affairs. The Directorate of Fisheries is the Authority's leading advisory and executive body in fisheries management in Norway. The main task of the Directorate is to work for the Norwegian fisheries and aquaculture industry to be promoted and developed to the benefit of those who work in the industry and to ensure that the long-term fishery resources provide the best benefit. The Directorate handles licenses and access to operate fishing and leads the vessel register and fisherman's numbers.

The Directorate of Fisheries shares premises with the IMR.



Bergen

Bergen is a city on the west coast of Norway, and the second-largest city in Norway. The city centre borders to the fjord, and is otherwise surrounded by mountains. Many of the extra-municipal suburbs are on islands.

Bergen has experienced a dramatic relocation from the city center in the last century, and in 2014 came a report on the development since 1914. The population in the borough of Bergenhus has declined to nearly half over the past century.

| | |
|-------|--------|
| 1914: | 76.867 |
| 2014: | 40.606 |

Taking with them the majority of businesses and industries, the relocation to the suburbs have had a severe impact on day to day life in the city center, and the marine cluster is the single largest employer in the area.

The current location of IMR and DF is located on the Nordnes peninsula in Bergen, just a few minutes walk from the city center. The different departments are spread over several different locations. Some of the old buildings are in need of refurbishment, but most are in very good condition.



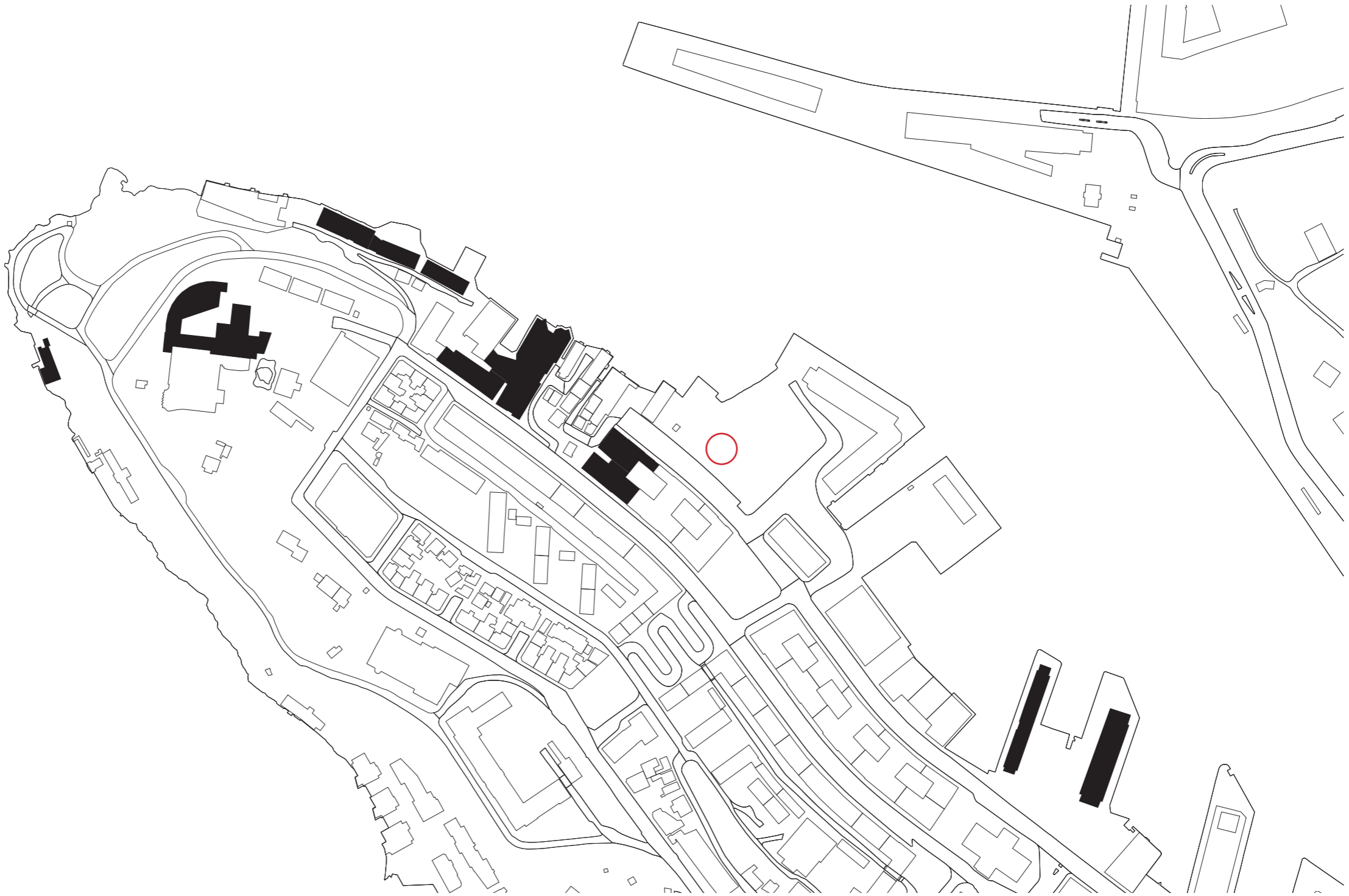
Thesis

The theme of my diploma is the development of a Marine Research Cluster on the waterfront within the border between the historic and post-war context in the city center of Bergen.

In my project I propose the reshaping of a parking lot on the into a point of gathering for a growing marine research cluster.

The aim is to create a closer relationship between the research community, the sea and the urban and social context of the city.





Existing buildings of IMR and the Directorate of Fisheries

Proposed site 

Architectural ambition

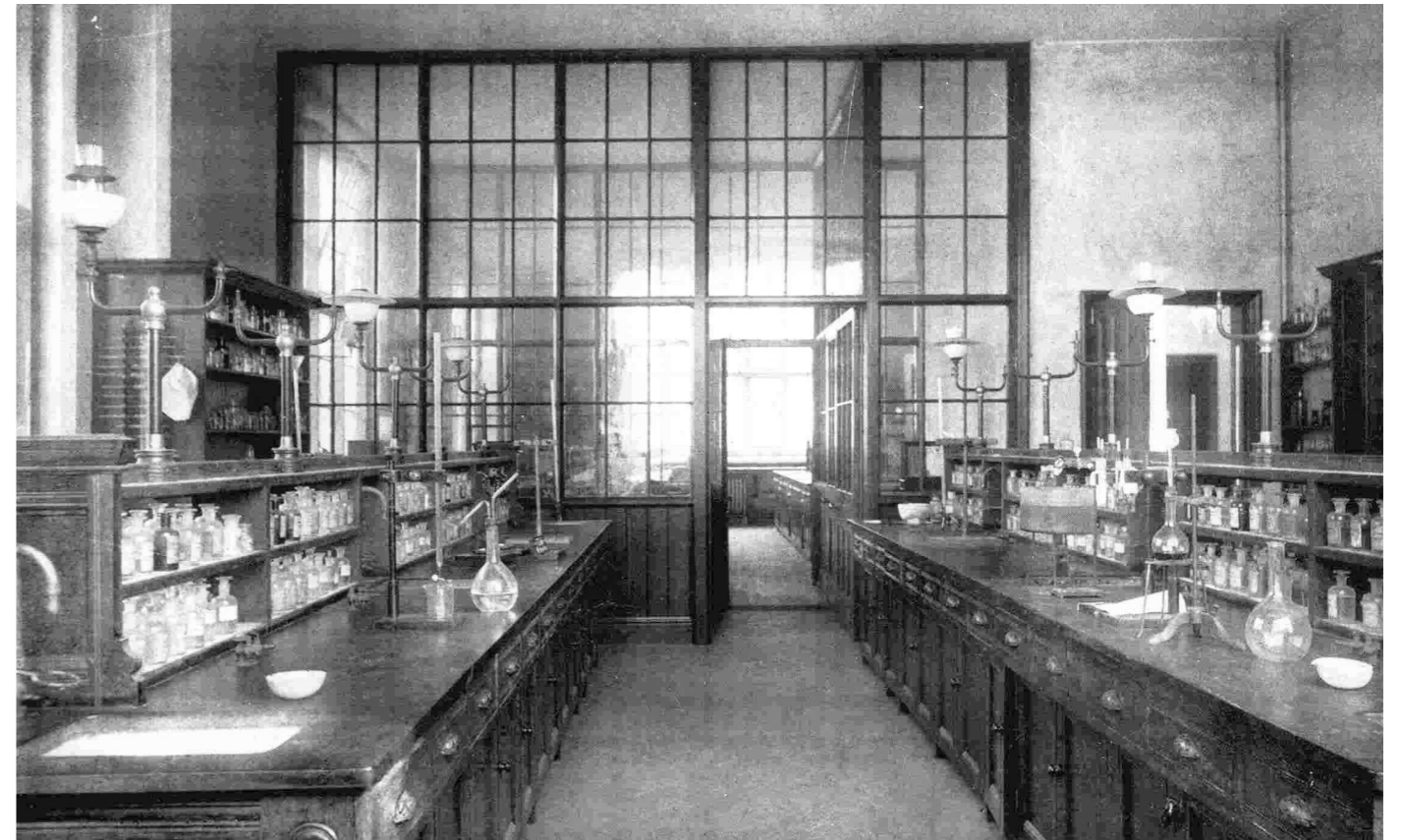
The project has a complex program, and several aims in a greater urban scale as well as local.

The Marine Research Cluster in Nordnes is well established with several buildings along the main road, but deserves a point of gathering, and a stronger connection to the sea. Most key-buildings today lacks direct access to the waterfront.

The proposed site is today a parking lot, and creates a gap in the urban facade, especially towards the waterfront, very apparent when approaching from sea. The second aim is to create a more continuous facade oriented to the sea.

The fleet of ships employed by IMR frequently docks in Bergen for change of personnel and delivery of samples collected on their expeditions. The project would like to offer a situation where architecture meets the water and connects itself to maritime operations.

From being a small institution with its roots dating back to the 1960s, the IMR has grown into a large operation with about 900 employees. Together with the Directorate of Fisheries and the merge with NIFES, more than 700 people work in the Marine Research Cluster in Nordnes. The cluster consists mainly of several small buildings, and none having a space where it is possible for larger groups to gather, having a conference or a celebration.



Conditions survey of the existing buildings

Nordnesgaten 50, IMR

The total area of the building is 8,265 m². The property consists of several buildings, built in 1960 and 1997. The buildings are concrete buildings on 2-10 floors. The high block underwent internal rehabilitation in the period 1997 to 2005. Exterior concrete surfaces were painted, but the original steel facade plates were retained.

The building has a relatively modern internal standard. In the laboratory loop, canteen and middle wing, the standard is as of the 1997 construction year. Some wear and tear are recorded on the surfaces. External surfaces are considered to be in a satisfactory condition also here.



Nordnesgaten 33, IMR

The building was completed in 1985 and has only undergone minor upgrades since. There are cellular offices in all floors. The building generally appears with standard from the construction year. External surfaces are considered to be in satisfactory condition.



Conditions survey of the existing buildings

Nordnesboder 1-5,

Nordnesboder is the most historic of the buildings in the cluster. Built in the late 19th century as storage buildings for trading, the majority today function as nutrition laboratories and offices, and are well maintained with means from the planning authorities.



Strandgaten 229, Directorate of Fisheries

The Directorate of Fisheries has a gross area of more than 8,000 square meters in Bergen.

The construction technology state of the Directorate of Fisheries' premises in Strandgaten 229 is assessed by Multi-consult in a report of 2013. The state report concludes that the buildings appear to be largely maintained.

The Ministry of Fisheries The Directorate of Fisheries will meet its area needs, if IMR moves out of current areas in parts of the building.



PROGRAM

The program will be separated in two volumes, a Public building and a Laboratory.

Spaces of Theory

Seminar Rooms
Office
Conference Room
Lecture Hall
Research desk in the lab
Library

Informal spaces

Library
Atrium
Terrace
Social space
Kitchen
Circulation
Foyer
Workshop
Cafe

Spaces of Experiment

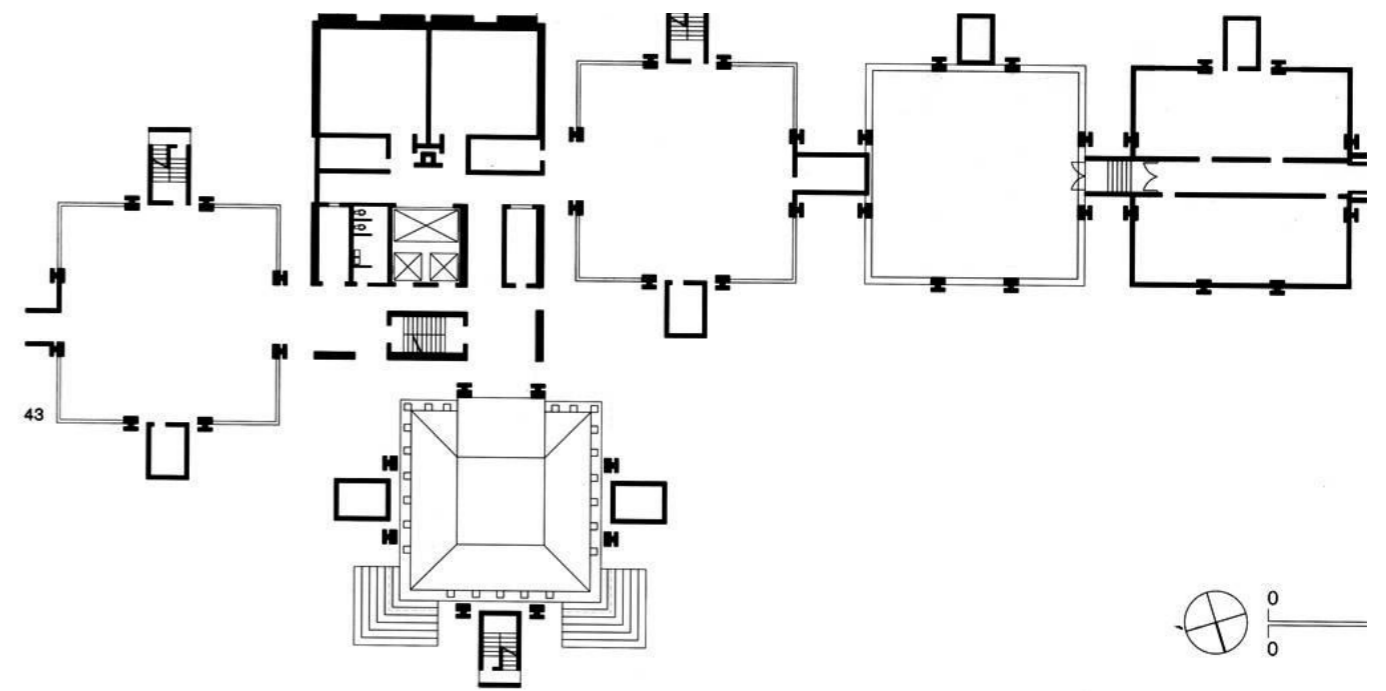
Research desk in lab
LAB
Collection depot
Laboratory animal housing
Storage
Workshop

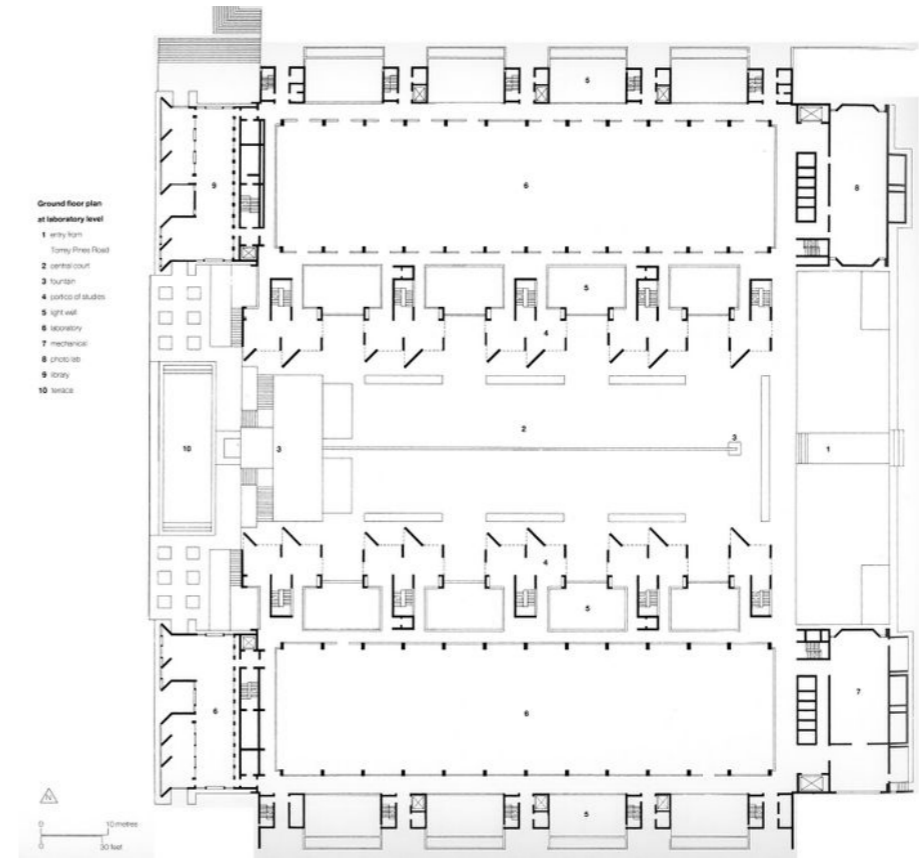
Together approx. 5.000 - 8.000m²



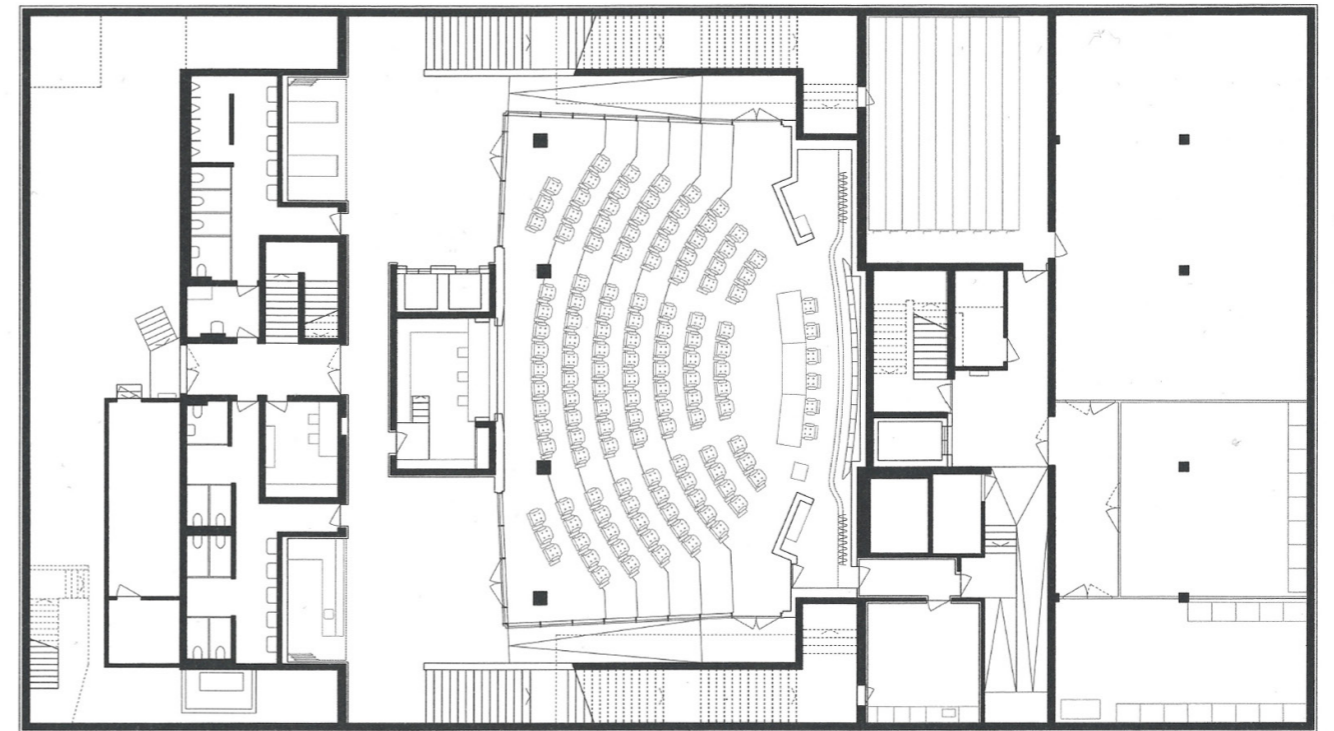


Louis Kahn, Richards Medical Center, 1965





Louis Kahn, Salk Institute, 1962



Peter Märkli, Novartis Visitor Center, 2006



- 1 PUBLIC SPACES
 - 1.1 MAIN ENTRANCE
 - 1.2 RECEPTION
 - 1.3 LOBBY
 - 1.4 CONFERENCE ROOM
 - 1.5 WAITING ROOM
 - 1.6 SHOW ROOM
- 2 OFFICE SPACES
 - 2.1 OPEN OFFICE AREA
 - 2.2 PRIVATE OFFICE ROOM
 - 2.3 MEETING ROOM
 - 2.4 MAJOR MEETING ROOM
 - 2.5 DIRECTOR'S OFFICE
 - 2.6 FINANCE DIRECTOR'S OFFICE
 - 2.7 FINANCE MANAGER'S OFFICE
 - 2.8 HR FILE STORAGE
 - 2.9 HR FILE STORAGE
 - 2.10 PURCHASING FILE STORAGE
- 3 SERVICE SPACES
 - 3.1 TOILET
 - 3.2 TOILET
 - 3.3 TOILET
 - 3.4 TOILET
 - 3.5 TOILET
 - 3.6 TOILET
 - 3.7 TOILET
 - 3.8 TOILET
 - 3.9 ELECTRIC SUPPLY ROOM
 - 3.10 EMERGENCY SUPPLY ROOM
 - 3.11 SECURITY MONITORING ROOM
 - 3.12 EMERGENCY SUPPLY ROOM
 - 3.13 COOLING ROOM
 - 3.14 TELECOMMUNICATIONS ROOM
 - 3.15 MECHANICAL ROOM
 - 3.16 STORAGE
 - 3.17 STORAGE
 - 3.18 STORAGE
 - 3.19 STORAGE
 - 3.20 STORAGE
- 4 RECREATION
 - 4.1 SERVICE ENTRANCE
 - 4.2 MAIN ENTRANCE
 - 4.3 FOOD SERVICE
 - 4.4 RESTROOMS / TOILET
 - 4.5 STORAGE
 - 4.6 TOILET
 - 4.7 EMPLOYEE LOCKER ROOM
 - 4.8 RECEPTION OFFICE
 - 4.9 PRIVATE OFFICE
 - 4.10 STORAGE ROOM
 - 4.11 LOBBY
 - 4.12 OFFICE
 - 4.13 OFFICE
 - 4.14 OFFICE
 - 4.15 TRASH
- 5 OUTDOOR SPACES
 - 5.1 BALCONY / TERRACE
 - 5.2 TERRACE
 - 5.3 TERRACE
 - 5.4 OPEN
- 6 CHAIRMAN'S / VP AREA
 - 6.1 CHAIRMAN'S OFFICE
 - 6.2 MEETING ROOM
 - 6.3 CHAIRMAN'S SECRETARY
 - 6.4 SECRETARY
 - 6.5 PRIVATE OFFICE
 - 6.6 FILE AND GIFT STORAGE
 - 6.7 C.E.O. OFFICE
- 7 HANDED OFFICE
 - 7.1 OPEN OFFICE AREA
 - 7.2 MEETING ROOM
 - 7.3 PRIVATE OFFICE
 - 7.4 SECRETARY



Alvaro Siza, The Building on the Water, 2014

Material

| | |
|---------------------|--------|
| Situation plan | 1:1000 |
| Situation model | 1:500 |
| Plans | 1:200 |
| Section | 1:200 |
| Elevation | 1:200 |
| Model | 1:200 |
| Construction/detail | 1:50 |
| Illustrations | |

Schedule

| | |
|------------------------------|--|
| July - August | Visit site |
| August - September | Volume studies |
| September, October, November | Development |
| November - December | Representation, production, illustration |

Deadlines

| | |
|---------------|-----------------------|
| 15. August | Site visit |
| 21. August | Situation model 1:500 |
| 31. August | Volume studies |
| 15. September | Sketch project 1:500 |
| 15. October | Drawings 1:200 |

| | |
|--------------|-------------|
| 30. November | Model 1:200 |
| 10. December | Graphics |