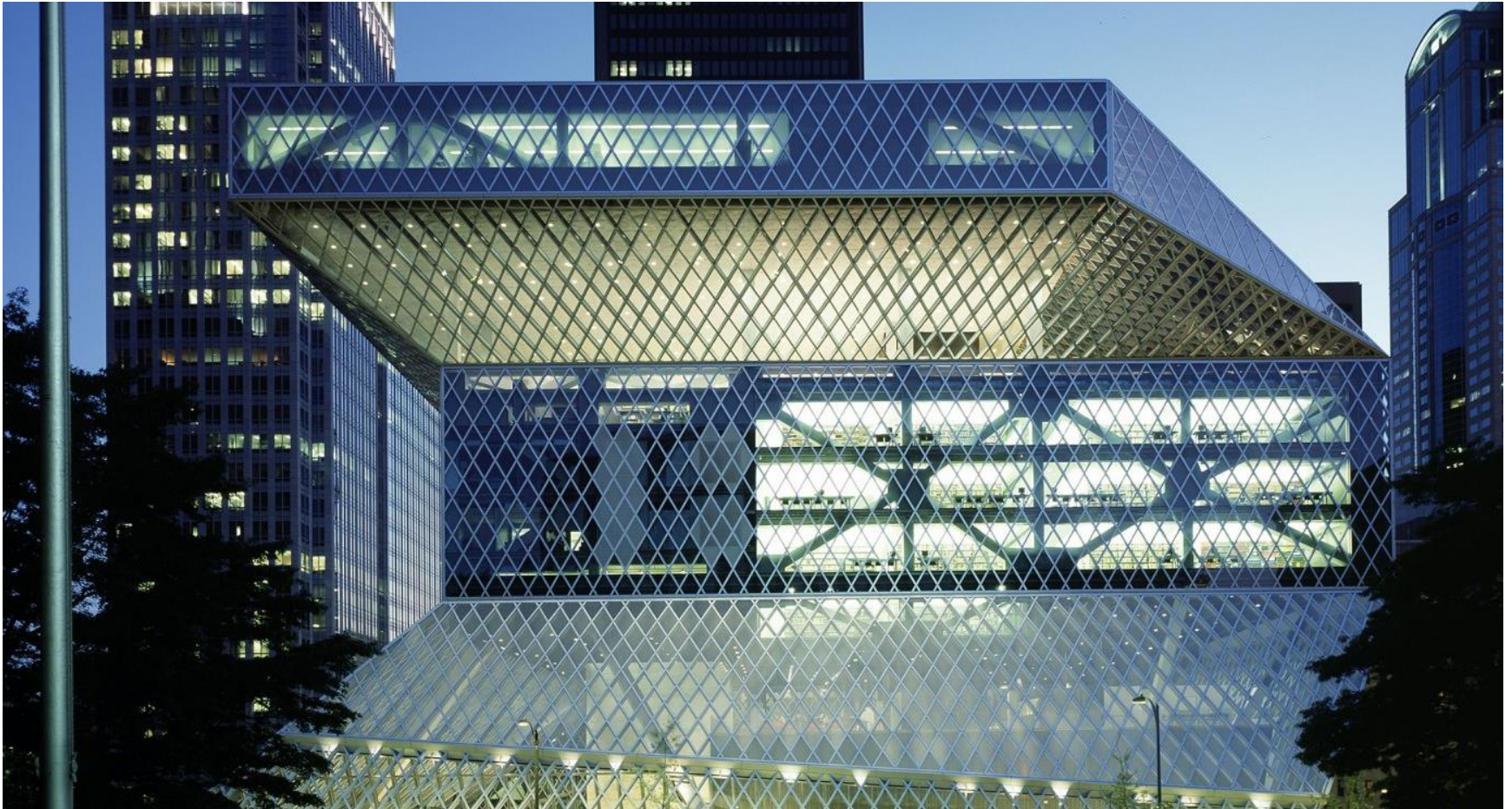


Lecture 5: Architectural Programing

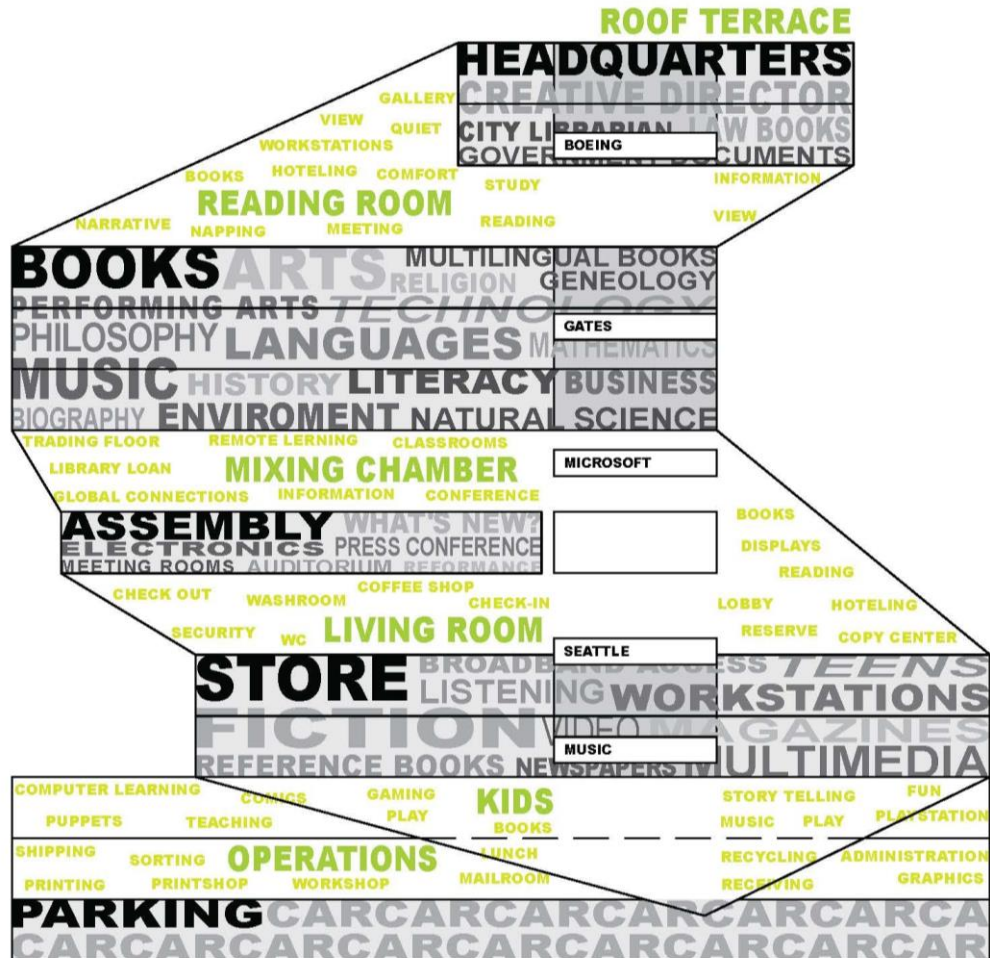


Introduction

Every architectural design introduces an answer to a complex question. It should speak to the clients requirements, needs, and aspirations, while being free of any design mistakes or functional problems.

To achieve this, architects engage with intensive research and data collection before starting the design.

Architectural programming is concerned with the collection and organization of information that is required for building design.



Building Diagram, OMA

Design Values

Values to humans are mostly represented by Maslow's Pyramid & Enduring Values. In a very similar sense, architecture may reflect values of the same hierarchy as mentioned below:

- Survival (to protect and shelter)
- Good Life (to provide comfort)
- Art (to excite and stimulate)

There are eight value areas cover the focus of most architectural programs:

Human: Functional, social, physical, physiological, and psychological.

Environmental: Site, climate, context, resources, and waste.

Cultural: Historical, institutional, political, and legal.

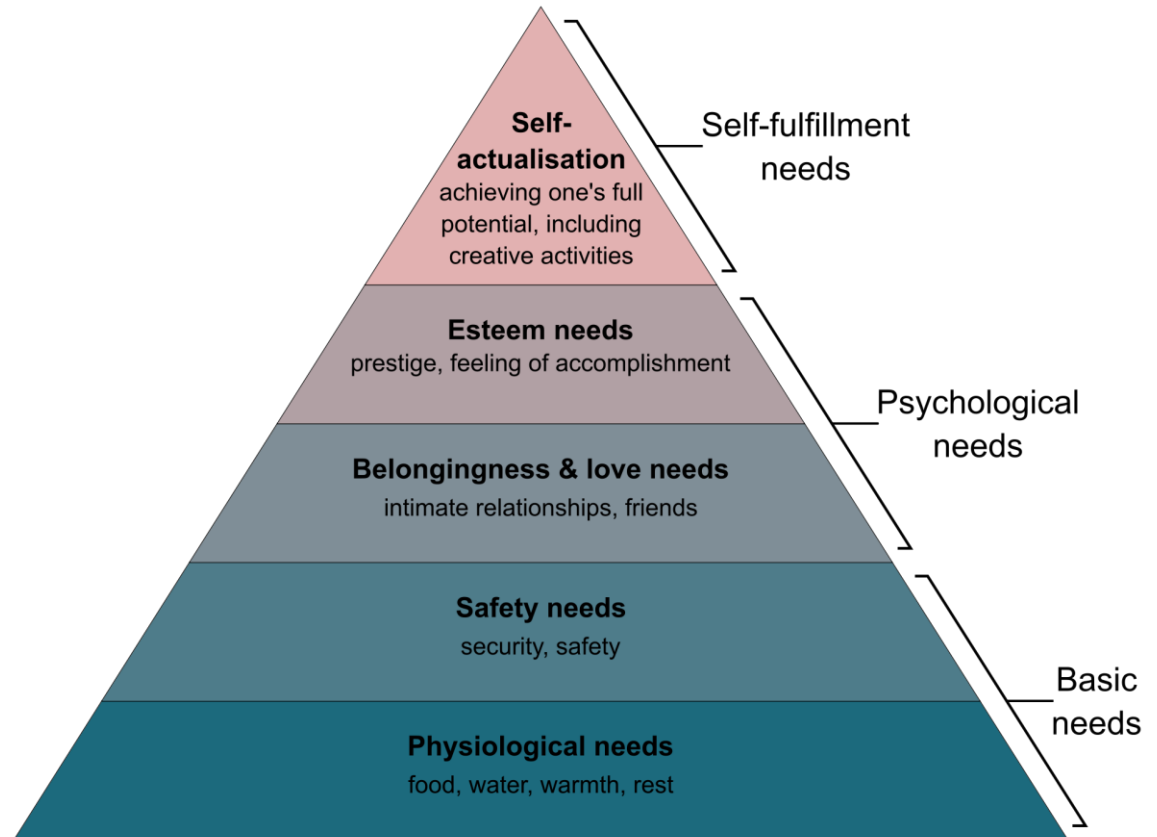
Technological: Materials, systems, and processes.

Temporal: Growth, change, and permanence.

Economic: Finance, construction, operations, maintenance, and energy.

Aesthetic: Form, space, color, and meaning.

Safety: Structural, fire, chemical, personal, and criminal.



Maslow's Pyramid and Enduring Values

Beginning the Program

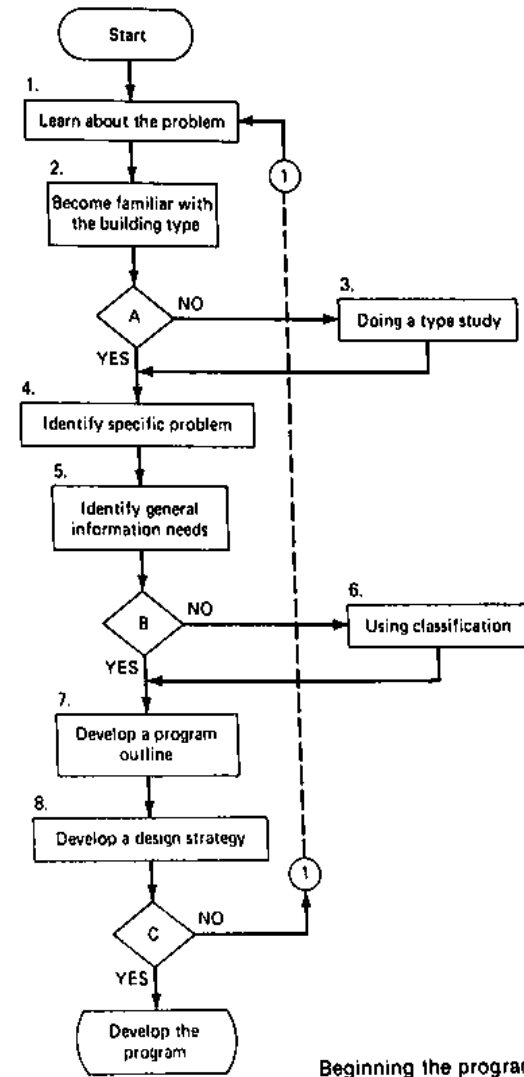
The program begins with a meeting with the client, identifying project types, functions, and goals. If the program is simple, this meeting could be enough to proceed with the design.

In complex projects, more information should be collected before starting the design. These information are mentioned in **Table 8-2, p196** :

- Person
- Purpose
- Behavior
- Function
- Object

These information should follow the project hierarchy:

Complex > Building 1 > Ward 1 > Room 1
 > Room 2
 > Ward 2
 > Building 2



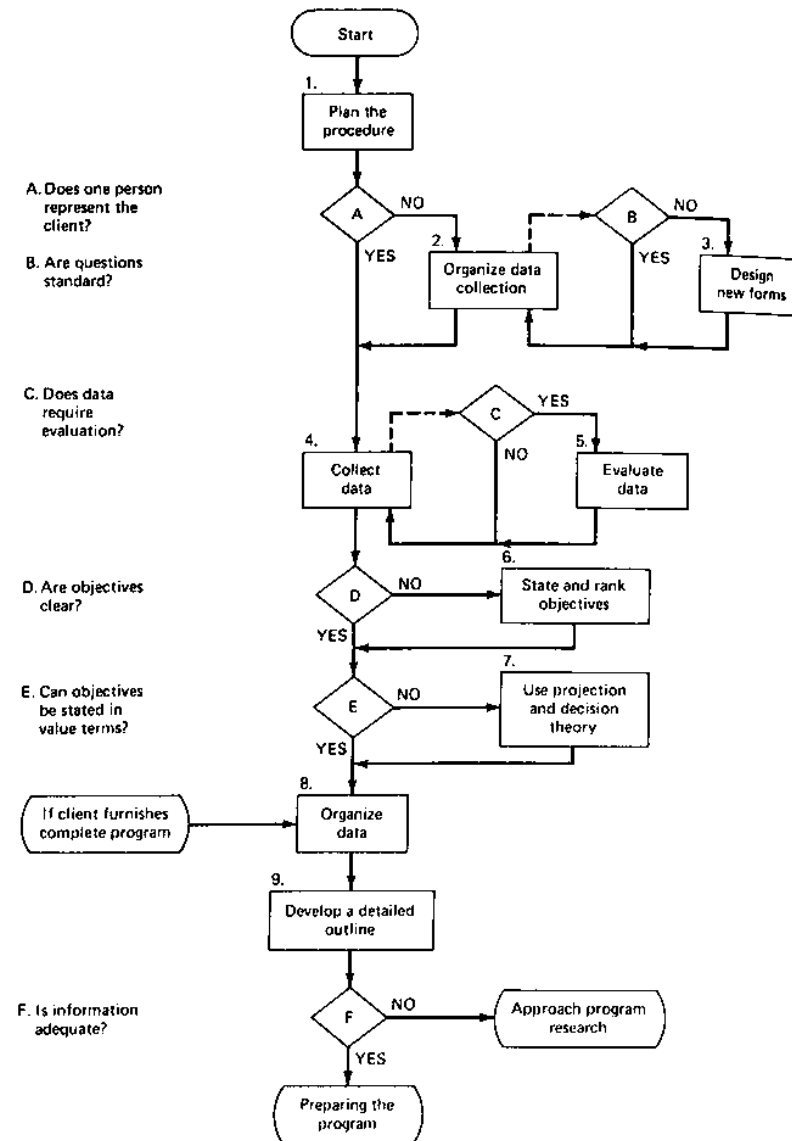
Beginning the program.

Beginning the program

Developing the Program

The information gathered from the client are usually not enough. Therefore, the program should be developed by answering these questions:

- **What kind of data are missing?**
Personal or public, quantitative or qualitative, factual or potential.
- **How these data should look like?**
Numeric or graphic, collective or exclusive.
- **Where these data can be obtained from?**
References, interviews, case studies, experiments, questionnaires, observations.



Developing the program

Program research

Program research begins with identifying the type of information in need. Know the type of information leads to the method of its collection.

Authoritative information

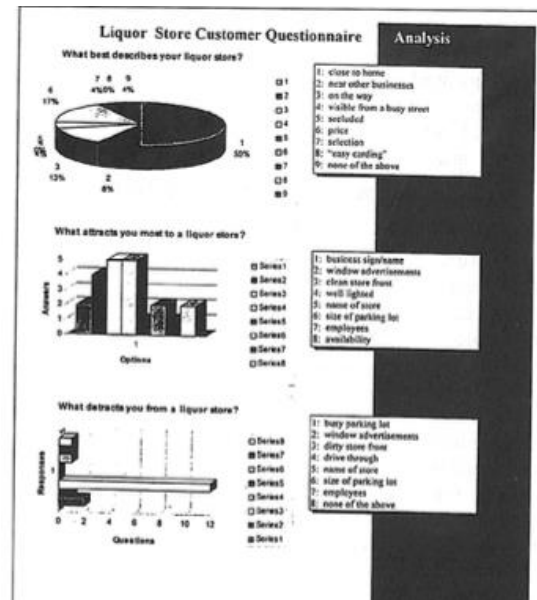
If the preferences of the client are not be clear, a schematic design may be developed and discussed with the client.



Client meeting

Factual information

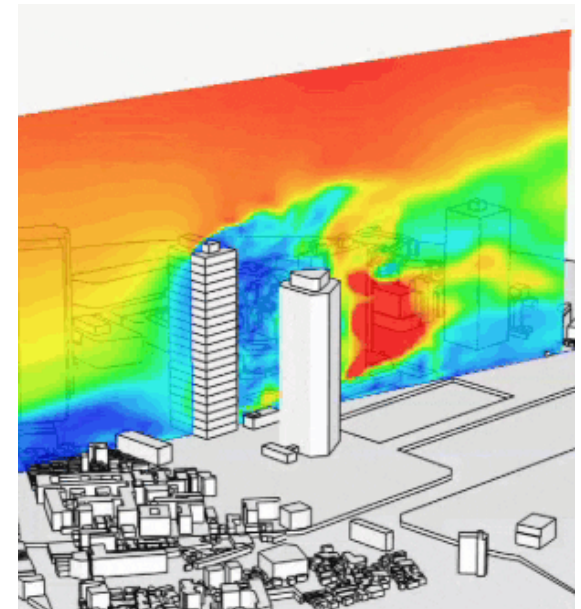
Case studies may provide enough information for tentative programs. However, detailed information may be acquired from surveys, experiments, observations, guided questionnaires.



Survey results

Projective information

If the data cannot be obtained from the current conditions, a simulation model built with the best accurate data can be used for projecting these data.



Wind simulation model

Program Outline

The outcome of the program data collection and research are gathered in a program booklet according to the following outline:

- Front Matter
- Client / User
- Problems and Purposes
- Function Criteria
- Object Criteria
- Approaches
- Back Matter



OMA Project Booklet

Program contents

Client / User

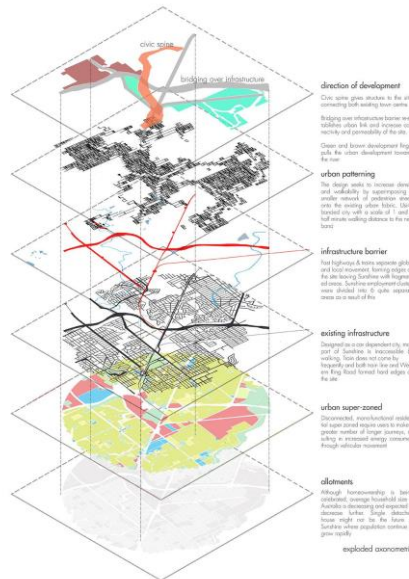
the client or user institution, demographics, philosophy, history, institutional operations and development.



Apple store, brand, history, and philosophy

Problems and Purposes:

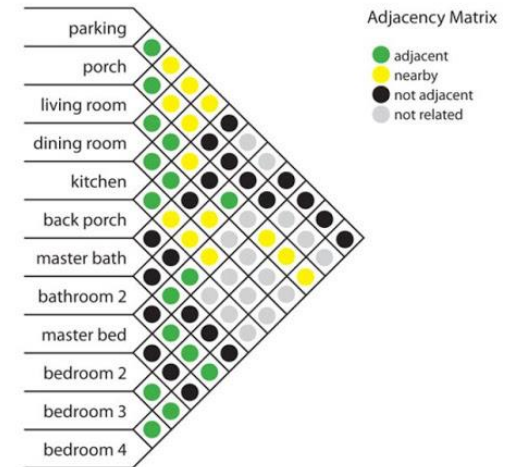
Analysis of existing conditions, client purposes and goals, project goals, behavioral constraints, time constraints, project budget, and priorities. Also contains the codes, ordinances, and building standards.



Site analysis

Function Criteria

Arrangement of functional areas and their locations on the site, performance requirements, environmental and operational requirements.



Space functional matrix

Proposal Graphics

Object Criteria:

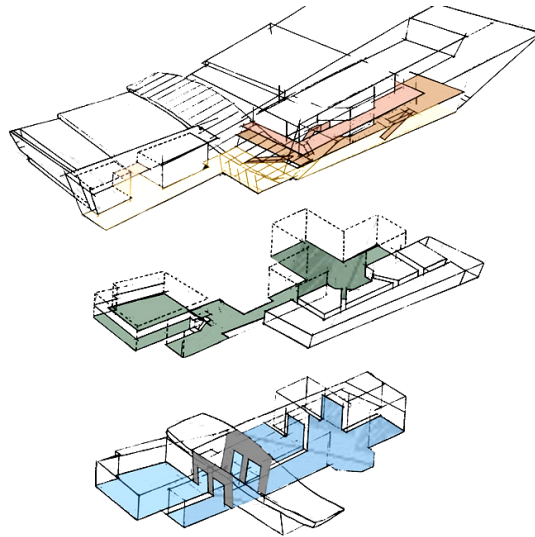
Consists of lists of the building parts, equipment, materials.



Finishes, furniture, and material selection

Approaches:

Include typological studies for similar buildings, patterns of solutions, statement of design philosophy, basic ideas for solving the project problems.

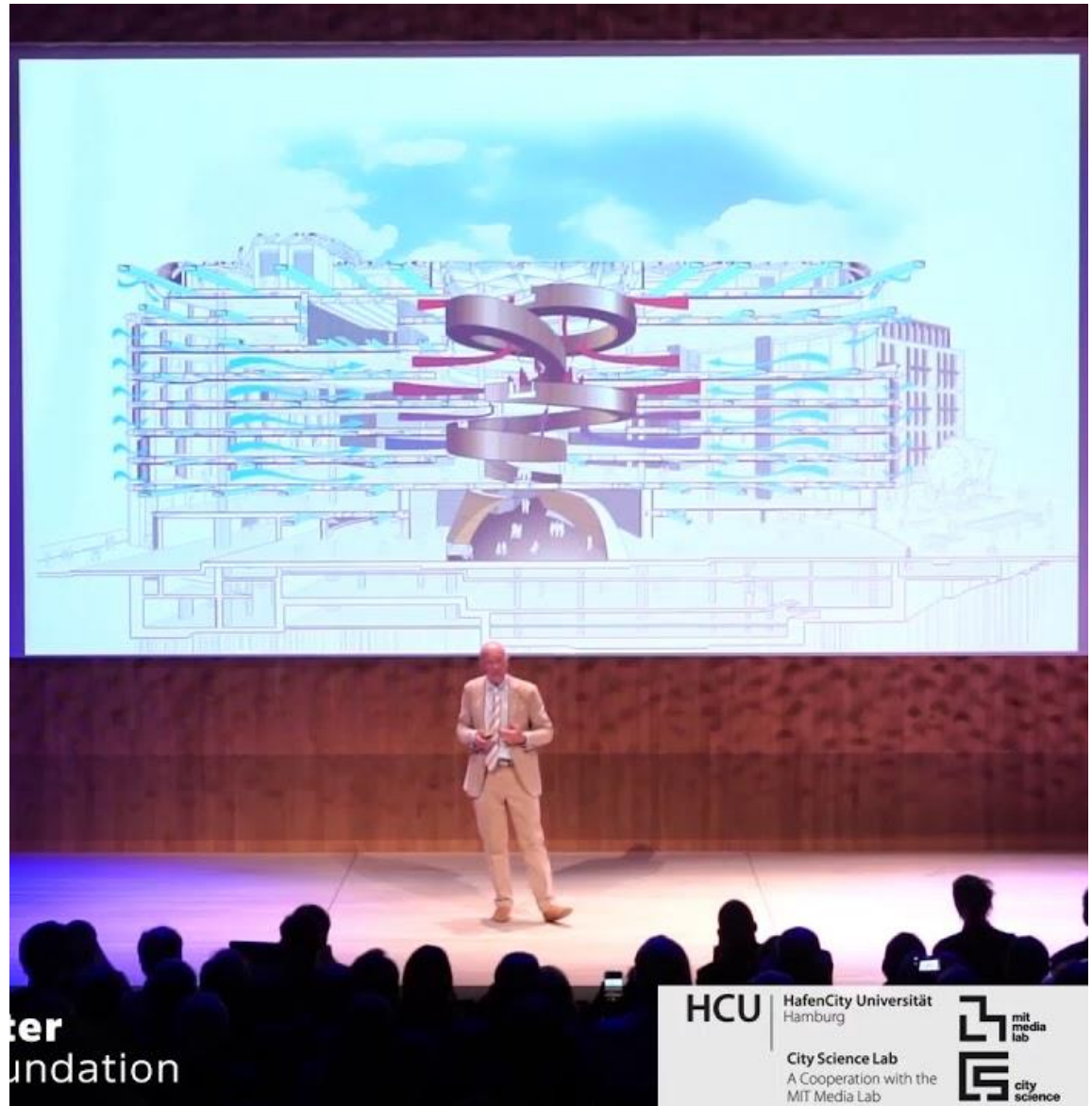


Circulation diagram

Presentation

Presenting the project program in a form of oral summary, conveys the information easily to the client. The written program remains the reference for the detailed information.

When projects are serving a number of clients or users, the architect's presentation shall be neutral.



Sir Norman Foster, presentation, Bloomberg building.

References

Snyder & Catanese, Introduction to
Architecture, McGraw Hill, 1979

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