Order and Information

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Subject Description
This architecture design studio considers the relationship between container and contained. How can architecture anticipate the objects and actions it is to house or hold? The library has historically had to deal with this problem as the breadth of the media it houses has changed, the size of its contents has inevitably grown, and its civic functions has evolved. So what then happens to the library “after the internet” when information is stored in our pockets, but “truth” is increasingly compromised by alternative facts? How do libraries contain diverse constituencies? What is the fate of information, its storage and its access, as the library contends with public knowledge today and what that might be in the future?

Design Approach
Order Through Structure
In accelerated times, design justified through program is born dead. Programs are not stable, and typically, despite most well-meaning intentions, misalign with people’s behaviors. Monofunctional organizations foreclose possibility. How, then, might we order architectural space in times of flux?

To this end Umberto Eco’s Opera Aperta (1962) describes a beautifully useful approach captured in his conjecture of openness, which characterizes an author’s cultural production as a “decision to leave arrangements of some constituents of a work to the public or to chance.” In architecture, we can imagine this idea as the construction of a spatially open framework, or loose order, and situate it in opposition to programmatic and typological plan-making approaches. Such is an attitude that considers semi-autonomous spatial organizations that accommodate, or even merely tolerate, evolving configurations of activities and things. These open orders can have an
underlying structural or material logic, but are just as well allusive, compositional, figurative, or arbitrary. Here the architect exceeds the role of translator, a converter of needs and wants into plans, or re-arranger, fitting preexisting spatial archetypes within a site, and instead becomes an author. It is where all alibis vanish and we are left to our own devices.

A clear, open system is elemental. But in opposition to order through repetition, our times allow for, or even demand, a certain looseness or indifference—“well, kind of, you know, whatever!” Spatial arrangements that generate variety prevail, as activities, objects, and things fluctuate in scale and occurrence. An open structure is anticipatory. It opens up a space of future possibilities. It is intentionally to be determined. It triggers spontaneous participation and focuses on the choreography of situations. There is no start or end, no entry or exit. It does not dictate how to move.

Loose fit architecture is a concept explored by architect Cedric Price in the 1960’s as a way to ‘enable rather than determine human activity’ in a building, and in many ways sets the groundwork for today’s explorations in architectural adaptability and provisional responsive technologies. Similarly to open structure, it embraces open programming, a degree of functional ambiguity, and even planned obsolescence. Loose-fit offers a decoupling between spaces and access, volumes and functions, scale and perception, or exterior envelope and interiority. If the traditional role of the building profession is to deliver an unrelenting knowable outcome for each project (which is indeed a necessary parameter for any building to be constructed), loose-fit architecture argues – demands even – that an embrace of open-ended uncertainty is the real task for the architect in an effort to address the active life of a building.

In parallel, Dutch Structuralists of the 1960’s, sought a flexibility that was receptive to the identity of a building’s inhabitants, and the changing nature of its contents. Despite its totalizing ambitions, this movement sought to order the disparate elements of culture into one system. Notably N. John Habraken introduced “support and infill” as a duality that could determine the limits of an architect’s authorship while designating control. Infill, in his research, was a way of humanizing architecture, offering inhabitants a way to “own” their space, enabling a bottom-up counterpart to the architect’s top-down.

The relationship between space and structure is self evident. Structure, the bones of a building, is the most permanent of all elements that make up a building. Often however, how to support the building form is an afterthought, after program and form are determined. This studio will look at structure as a principal ordering device. By analyzing the work of a number of visionary structural engineers we will develop an understanding
of structure as a driver for design. This understanding will then be tested to make various spatial orders that can be evaluated on their ability to contain program and allow flow.

The Library

By definition, the term *information* provides answers to questions and resolves uncertainties. The beginning of the 21st century has been defined as the age of information, and is an era in which more people have access to increasing amounts of information via distributed networks of knowledge. If, to be ‘informed’ is to have access to facts and data, then are we living in an age where uncertainty is eradicated?

While analog public spaces for obtaining knowledge, aka the library, may be under assault in terms of social and technological relevance, they also provide a kind of free-space where information is collectively stored, shared, and codified in ways the benefit the common good. At the heart of this problem remains architecture’s prompt to serve as a container, yet the library today is faced with the task of storing information that is purportedly more accessible than ever, more free than ever, and virtually immaterial. This of course is quite the contrary. In fact, it may be the responsibility of institutions tied to the storage and access to knowledge to educate its goers and to help distinguish between information, misinformation, and even disinformation rather than just act as a storehouse for data. As for our current digital moment, in fact information travels through a combination of fiber optic cables, silicone chips, and LED arrays while being stored on remote servers. All media that helps to support information clearly depends on physical infrastructure and spatial experience, but further it might serve as a site that challenges the insistent isolation offered by smart devices and frenetic finger tips. These characterizations pose a myriad of contradictions to the library’s legacy as an exclusive and centralized site of information and a repository expected to live on in perpetuity.

As data saturation and distribution evolves, so too must our notions about these public repositories of information, inquiry, and knowledge. In order to evolve, a loose-fit relationship must evolve that decouples traditional typological definitions with new design strategies. Frederic Kittler reminds us of the significance of libraries amidst changing informational structures:

“All libraries are discourse networks, but all discourse network are not books. In the second industrial revolution, with its automation of the streams of information, the analysis of discourses has yet to exhaust the forms of knowledge and power. Archaeologies of the present must also take into account data storage, transmission and calculation in technological media”
Site

The final project of the studio will be the design of a library situated in the Zuidas (South Axis) neighborhood of Amsterdam. This design problem parallels one that is currently being tackled by the city and its planners, a project currently titled “OBA (Openbare Bibliotheek Amsterdam) NEXT,” meant to integrate concerns about our technological future, as well as questions about socio/economic accessibility, and sustainability. Zuidas has recognized as much:

“Besides school, a public library is the only institution that guarantees everyone access to information and resources to develop themselves. This mission will, in the coming decade, be the core strategy and program development. But more is needed: the pursuit of a public library in the 21st century must be more than ever focused on openness to ensure there is a reliable guide to information and knowledge in the digital information domain, for its members and visitors. Openness means, in a public environment, to dare to question the distinction between fact and fiction, news and fake news, data and opinion. To be able to understand the impact of algorithms on your “search results” and work out alternatives for yourselves.”

Abutting the outside southern edge of the Amsterdam core on the other side of the first ring road, Zuidas is a Central Business District that is slated to be a powerhouse economic center for the whole of the Netherlands. But Zuidas is a neighborhood modeled after the likes of Canary Wharf and La Defense to house multinational corporations, giving it the nickname “Financial Mile.” This is significantly bolstered by the A10 ring road, the Amsterdam Zuid Station train hub, and its proximity to Schipol airport. Zuidas further hopes to attract international attention by developing its art and cultural programming, which includes OBA NEXT, and it is currently examining a site to serve as an “information center” that is the OBA NEXT.

Throughout the semester, and especially in our engagement with Zuidas and OBA NEXT, students will be tasked with visioning not only a library in Amsterdam, but one that tackles problems faced by libraries globally today and in the future. These visioning calisthenics are not on behalf of OBA NEXT or a faithfulness to their program’s ambition, instead students will use this research and mode of articulation to stake a claim for their project. How are we to anticipate how to house the changing technological landscape that enable libraries and the media that they house? What can libraries do as one of the few public institutions that are free to the public? What is the library’s role as bearers of information? What is library’s audience today, and how is it
addressed? How can architecture be open to both the library’s changing circumstances and to the public?

**Subject Objectives**

The objective of the course is to develop an ability to research, conceptualize, develop, and represent an architectural project. This will be carried out with the goals of understanding and implementing ordering systems that are configured through structure, proposing how this establishes specific yet flexible forms of containment for the subjects being stored. Further research will be conducted around media and information technology that situates how these systems are stored and accessed for library goers. Students will apply their research in these realms to the proposal and development of a library in an urban site. Students will learn about structure through an emphasis on model making, and will develop their design work with an emphasis on iteration.

**Evaluation Criteria**

- **5% Deliverables**
- **5% Attendance/Participation**
  - Attendance for the full duration of each class is mandatory. You are allowed three excused absences for the semester. An excused absence is defined as one that was discussed with and approved by the professor at least 24 hours prior to the date of absence, or a family or medical emergency that is confirmed by your physician or a dean in Student Support Services.
- **15% Concept** how clearly are you articulating your design intentions?
- **25% Process**: how well are you using your concept to develop a spatial and architectural response to the given program or site?
- **25% Final Review**:
  - Did you synthesize your concept into a resolved architecture appropriate for the site and larger spatio-temporal context?
  - Is your architectural response a logical conclusion of your process?
  - Does your design address the needs called out in the given program?
- **25% Representation**:
  - Quality of representation?
  - Evidence of skill/craft?
  - Ability of representation to convey information?
  - Clarity of representation?
Absences beyond the three allotted will result in a decrease in your final grade. If you miss six or more classes, you will be asked to drop the subject or receive a failing grade. Evaluation is contingent on students active participation, contribution to the discourse of the studio, demonstrable design development, as well as conceptual and representational clarity.

**Grading**

**A** Exceptionally good performance demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.

**B** Good performance demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.

**C** Adequate performance demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.

**D** Minimally acceptable performance demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.

**F** Failed. This grade also signifies that the student must repeat the subject to receive credit.

**Schedule**

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<td>Zuidas with Planners</td>
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<td>Sun</td>
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<td>MVRDV and Rotterdam</td>
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<td>Mon</td>
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<td>Presentation to Zuidas</td>
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<td>Tuesday</td>
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<td>Final</td>
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Reading Sources

Recommended Texts

Structuralism and Loose Fit

- Idenburg, Florian; Liu, Jing; Papageorgiou, Ilias; and compiler, editor. SO-IL (Firm). *Solid objectives: order, edge, aura.* n.p.: Zürich, Switzerland: Lars Müller Publishers, [2017], 2017.

Structure and Order

**Information and Access**


**Final Studio Deliverables**

Final deliverables will be discussed on a student by student basis; the following is a general guideline.

Site plan (1/32”=1’0”)

Diagrams/Rationale/Structure

Plans (1/8”=1’0”)

Sections (1/8”=1’0”)

Aerial Perspective

Street Level Perspective

2 Interior Perspectives

Model (1/16”=1’0”)

Structural model iterations

Grades will not be posted for students to view on their grade report until their work has been archived. The projects need to be properly prepared and formatted, and delivered to the Archiving TA. Studio TA’s will collect project archives from each student immediately following the review. Detailed requirements and instructions for formatting will be posted to CRON, the Department website, and sent to students at the beginning of the semester.
Academic Integrity + Honesty

MIT's expectations and policies regarding academic integrity should be read carefully and adhered to diligently:  http://integrity.mit.edu

Student Performance Criteria: NAAB

Realm A: Critical Thinking and Representation
A1. Communication Skills: Ability to read, write, speak and listen effectively

A2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards

A3. Visual Communication Skills: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

A6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design.

A7. Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

A8. Ordering Systems Skills: Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three dimensional design.

Realm B: Integrated Building Practices, Technical Skills and Knowledge:
B9. Structural Systems: Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

Realm C: Leadership and Practice
C3. Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.