

## **FUTURES FROM NATURES**

Our studio will work on spaces for education and learning. We will design a Primary School to be located on a land adjacent to the High-Line in Manhattan. It will be the opportunity to go back to childhood and to develop a design language that is adapted and addressed to the young students of our program: the primary school. They would remember our designs their entire life as we will develop a series of senses-related design features.

To create an innovative design language and to generate individual architecture fundamentals, we will translate form emotions and space cognition, working on the 5 senses, by developing a series of prototypes and technological models, that trigger a sense response or a body reaction. As in phenomenology, we will interrogate the meanings of materials, spaces, colors, light, etc. We will make a series of experimental models involving our childhood memories of experiencing spacial conditions for example: double curved spaces versus spaces with fractures, horizontal-oblique-vertical, elementary colors versus color gradients, dark spaces versus luminous spaces, transparency versus translucency.

To create our individual design encyclopedias, we will look for inspirations in parallel fields to architecture. The studio will translate visual inspirations found into Natures. Each student will work on translating visuals related to: Topologies and Envelopes. The final architectural design should be considered as a living body - an Ecosystem - that is responsive to its environment.

Futures From Natures is a teaching methodology developed by David Tajchman, proposing to translate 3 categories of natural references, to be combined and synthesized later in the final architectural design:

- Topologies: are mathematical and geometrical infinite figures. The Möbius Strip and the Klein Bottle can be considered as topological formations as they both show endless forms and spaces. The topologies allow us to consider a continuity between grounds, walls and ceilings.
- Envelopes: can be intelligent, responsive, ecologic, reflective, transparent, etc. They can be applied in several layers. The sciences teach us at which scale we have to look to understand and translate the natural references.
- Ecosystems: comparable to a living body, the design synthesis shows a self-sufficient building that includes rules understood from nature studies, and that is site- and program-specific.

This series of experimental models are part of the architecture languages, gathered into a design synthesis to be located next to High-Line, on a land located at the corner of the 10th Avenue and the W20th Street. The former elevated MTA rail track that is now a successful and popular green promenade, gives us the opportunity to work on a mid-rise and vertical design in Manhattan, having several levels of accesses and connections to the city. The studio will deliver designs that are Manhattan-specific, related to the history of MTA's High-Line and that take advantage of this unique location to innovate in the design of educational and learning environments.

<b>TIMELINE</b>	Thursdays
AUG 27	<ul style="list-style-type: none"> <li>• 2:00 pm: <b>Studio introduction</b> and presentation</li> <li>• List of duets (groups of 2 students)</li> <li>• Site visit: 10th Avenue / W20th Street</li> <li>• Site 3d modelling</li> </ul>
SEP 06	<ul style="list-style-type: none"> <li>• Site modelling review: pin up 5 viewpoints printed A4 format</li> <li>• <b>Collection</b> of architectural references of schools or educational buildings: pin up 5 references printed A4 format</li> <li>• Selection of 3 visual references from <b>Natures</b>: pin up printed A4 format</li> </ul>
SEP 13	<ul style="list-style-type: none"> <li>• Site: draw sections from the 3d model</li> <li>• <b>Translation</b> of the references selection from natures by drawing and modelling: Topologies, Envelopes, Ecosystems</li> <li>• Phenomenology: Work on a sense and relate it to one of the above categories</li> </ul>
SEP 20	<ul style="list-style-type: none"> <li>• Site: <b>Document</b> history of the MTA and the High-Line: pin up at least 5 historical documents about the High-Line</li> <li>• Translation of references from natures by drawing and modelling: Topologies, Envelopes, Ecosystems</li> <li>• Phenomenology: Translation of the sense you are working on by building a kinetic prototype triggering <b>Motion</b>.</li> </ul>
SEP 27	<ul style="list-style-type: none"> <li>• Site-specific <b>Form Finding</b>: work on the volume of the primary school taking into account the attached areas of the program</li> <li>• Propose at least 5 physical models of the general <b>Volume</b> of the school</li> <li>• Phenomenology: Translation of the sense you are working on by building a kinetic prototype triggering <b>Motion</b>.</li> </ul>
OCT 04	<ul style="list-style-type: none"> <li>• Site-specific <b>Fundamentals Negotiation</b>: work on the volume of the primary school taking into account the attached areas of the program</li> <li>• Propose at least 5 physical models of the general volume of the school</li> </ul>
OCT 11	<ul style="list-style-type: none"> <li>• <b>Site-Specific</b> documents of the Primary School: Diagrammatic Section, Programmatic Section, Volumetric Physical Model, Perspectives, Pictures</li> </ul>
OCT 18	<ul style="list-style-type: none"> <li>• Preparation for the mid-term critique: To document the entire works</li> </ul>
OCT 25	<b>MID-TERM CRITIQUE</b>
NOV 01	<p>Detailing the primary School and pushing further the concept through <b>Digital Design</b>:</p> <ul style="list-style-type: none"> <li>- Improving the Topological Aspects with the Envelope and the Context</li> <li>- Developing a better cohesion with the phenomenological features</li> <li>- Working with the immediate context of the High-Line and the existing automated car-park</li> </ul>
NOV 08	<p><b>Design Development</b> by 3d-modelling: Select a series of sequences to build a <b>Narrative</b> of the project</p>
NOV 15	<p><b>Simplexity</b>: Build a relevant detailed part of the building showing the main ideas of the design. A physical model of one significant part of the primary school in relation with the High-Line</p>

- NOV 29      **Digitalism:** Produce drawings from the 3d model that come along with the physical model. They sometimes illustrate better than 2d drawings.
- DEC 06      Final Critique preparation
- DEC 13      Final Critique preparation
- DEC 20      **FINAL CRITIQUE**

## REFERENCES

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