

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Personal information	
Name	Szymon Piotr Kaniewski
Student number	5853087

Studio		
Name / Theme	Borders&Territories / Transient Liquidities along the New Silk Road III	
Main mentor	Stefano Milani	Design
Second mentor	Negar Sanaan Bensi	Research
Argumentation of choice of the studio	The studio creates a possibility to consider the large territorial and global scales of the built environment and the forces that shape it. Moreover, experimental approaches to the investigation of the spatial conditions emerging in the complex superpositions of political, infrastructural, and territorial orders are introduced and encouraged.	

Graduation project	
Title of the graduation project	Architecture of Accumulation. The Sublime Beauty of the Technical Object.

Goal	
Location:	Colon, Panama
The posed problem,	Architectural discourse seems to be dominated by an ongoing fascination with cities as the fullest expression of present-day spatial considerations, however, the contemporary state of global civilization requires an extensive infrastructure to facilitate supply chain logistics, data processing, food and energy production, and warehousing, which results in the production of captivating and radical spatial conditions on the literal and figurative peripheries. Colon Free Zone is a state-owned enclave of reduced customs regulations, serving as a logistics hub located at the Caribbean entrance to the Panama Canal, where these global forces take a concrete, tangible form and materialize in the spatial organization and architectural composition of the site.

	<p>The territory dedicated to trade, created on subsequently emerging pieces of reclaimed land, designed to facilitate the accumulation of goods and the movement of cargo trucks and forklifts, adjusted to the size of a container and standardized pallet rather than human, has become bigger than the city within which it initially grew. The significant scale of the architecture of the zone and the unprecedented visual impact it generates demand attention and aesthetic reflection. A complex system of interdependent dimensions unrelated to the scale of the human body creates its own logic of composition, construction, and spatial expression. However, the constant expansion of the zone and the ground operation it requires, results in different forms of accumulation- due to the congestion and blocking of the historic drainage canals the city experiences regular flooding. The territory remains in constant conflict as it needs to accommodate several material accumulation processes at the same time- storage of goods, flood water, and reclamation of soil. The solution to this conflict cannot be purely technical and requires a holistic approach that considers the spatial, aesthetic, and functional qualities of the proposed solutions. Despite the critical, global importance of the infrastructures present on the site, their spatial and architectural articulation is still not a common subject of consideration by architects and designers.</p>
research questions and	<p>How built environment can address and mediate the tension between different types of accumulation? More specifically, what could be the spatial, infrastructural, and architectural solutions to the problem of the conflict between the need for expansion of the</p>

	<p>zone and the resistance of landscape it causes?</p> <p>What kind of aesthetic emerges from the global, codified standards of contemporary industrial structures and how can it be sublimated into a significant piece of architecture?</p>
design assignment in which these result.	[Design Assignment]
<p>The creation of a hyper-object, super scale structure being a materialization of different global and local logics of accumulation, capable of facilitating multiple technical orders at the same time (logistics center, floodwater storage, drainage soil disposal site). Accumulation should not only be a programmatic requirement but a basic premise and a means of architectural production, defining spatial, material, structural, and aesthetic qualities of the object. Industrial architecture requires precision and rigor, therefore the quality and beauty of space should not be an afterthought but it must be integrated with the structural and technical considerations of the design process.</p>	
Process	
Method description	
<p>Requirements and aesthetic implications of different programs will be analyzed using the available sources (provided by researchers and manufacturers) along with the literature research regarding the theories of industrial architecture, and spatial experiments using the mediums of drawing and modeling. The mapping exercises started before P2 will still be revisited and updated as a tool that allows looking at a broader spatial logic of the site.</p>	

Literature and general practical references

Axel N. (editor), Barber D. (editor), Hirsch N. (editor), Vidokle A. (editor), 2017. "Accumulation" (available at: <https://www.e-flux.com/architecture/accumulation/>)

Koolhaas R., 2019. "Museum in the Countryside: Aesthetics of the Data Centre" in: Young L. (editor), 2019. "Machine Landscapes: Architectures of the Post-Anthropocene"

College van Rijksadviseurs, 2019. "(X)XL-verdozing: Minder, compacter, geconcentreerder, multifunctioneler"

Cabinet Magazine, 2012. "Issue 47: Logistics" (available at: <https://www.cabinetmagazine.org/issues/47/>)

Wachsmann K., Bollinger K. (editor), Medicus F. (editor), 2020. "Stressing Wachsmann: structures for a future = Strukturen für eine Zukunft"

Cooke C., Papadakis A., 1984. "Fantasy and construction: Iakov Chernikov's approach to architectural design"

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

Despite the location of the project in Panama, the design problem is relevant all around the world, including the Netherlands. Continuous development of global trade (including the recent dynamic growth of the e-commerce sector) resulting in the proliferation of extensive human-excluding architecture of warehouses, greenhouses, and data centers, requires rethinking their relationship with the cities and landscapes and the relationship between architecture and technology in general.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

This work may be considered a continuation and update of a formal and intellectual legacy of constructivism and subsequent researchers examining the spatial implications and the impact of global infrastructures and technologies on architecture.