



Reflection

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Methods of Analysis and Imagination: *A Matter of Scale*
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Sleeping Beauty

This project covers the revitalization of the former Volta Factory in Tallinn Estonia. This Abandoned site is located in the Volta Quarters, a small neighborhood near the northern border of the sub-district Kalamaja. Kalamaja served as the main fishing port of the city of Tallinn and has lots of vacant post-industrial sites near the bay. Each with its own different purpose, character and a rich history. These current ruins of the past exude a certain charm that sparked my curiosity; the setting awakened the urban explorer in me. I went inside to experience the character of the buildings and there couldn't be a better way to describe it like this: structures that have persisted through time and will continue to do so. It was the overwhelming scale of the walls - there were two big halls with walls that seemed well over a meter thick, the look of the repetitive basilica style arched windows and the rough textured limestone cladding that pulled me towards it. Some parts imposed a monumental and grotesque feeling due to sturdiness.

Various visits and research on the area gave me insight into its rich history and current use. The Volta factory was a producer of engines and generators for household items and for the marine. It had been operating for almost a century. The company went into business in 1900 and formed a lively hub of workers. The collapse of the Soviet-Union caused the Volta factory stranding in 1996. The sheer size of the structure ruled out demolition and the people of Kalamaja abandoned her.

What is left is a silent hollow skeleton stripped by thieves and subject to the elements. This process resulted in beautifully aged heritage, but also due to the outskirts-like positioning within the urban landscape, to a lot of socially and physically unsafe situations. Stories about crime and gangs in the now wastelands go around. Due to a lack of oversight, social control in this area is a problem.

Originally, there were five buildings on the Volta factory site, all built in a different time and style. Only two halls are still in decent shape and possess beautiful and typical limestone arches, thickness and immense scale. The other three buildings have hazardous conditions and either fully collapsed or suffer from major structural failure due to concrete rot and are planned to be demolished. These other buildings are placed against the two halls hiding the monumental facade. The two halls are placed lengthwise creating a barrier that secludes a big portion of wasteland covered in dust and debris. The adjacent quarter consists mainly of residential apartment blocks overlooking the seaside, five to eight stories high and a plaza in between. These apartment blocks are relatively new and are still in development (2017 - present day) and have a modern sober minimalistic style.

Nowadays, this site is used for historical tours, photoshoots and also cultural festivals called "*Kalamaja Days*". All these events point to a sense of pride that the Volta factory embedded in the local culture. I encountered numerous photo models and photographers during my visits who were trying to capture the beauty of the scene, but also a lot of tourists and locals urban-exploring in this area and following the same historical tours as me. At "*Kalamaja Days*" people (from different age groups) share all kinds of traditions and art forms of which dance, music, sport, arts and craft and also food are a few examples. These festivals are traditionally held in similar vacant industrial halls. All in all the backbone for the Volta cultural center was formed. This cultural center caters to and understands its context on a local cultural level and on the level of the urban context, capitalizing on the strong points of the site and eliminating the existing weaker points.

Volta Cultural Center

My design intervention aims at increasing the liveliness, livelihood and economy in the Volta Quarters by means of high quality leisure spaces for all ages and different kinds of activities. The idea is to house them inside and around old industrial heritage buildings and using their characteristics and qualities that you often cannot achieve with completely new. The project is coherent and integral design for the culture and sport center in the Volta factory halls which were introduced above as the sleeping beauties. Plans for the Volta factory site are still in development and visions either opt for lofts or other residential types with blocks of flats covering the wasteland. A rather homogeneous ensemble that doesn't encapsulate the beauty and character of Volta, but rather hides it in a cluster of modern building blocks that only partially address the weaknesses and strengths of the area and structure.

The two present ruinous Volta factory halls are almost 10 meters high, 30 meters in width and 70 meters long. The now collapsed structures inside these halls imply that there used to be two or more stories. Both halls have monumental heading. The southwest hall still has a roof, while the northeast hall is an open outdoor space. The southwest hall will house a sports and library program in combination with a restaurant in the form of a passage, study spaces and rentable office spaces. This ensemble will be three stories high. The northeast hall will house a theater, lounge and multipurpose event hall. The new main entrance is located at the middle or the meeting point of the two halls. This entrance in the form of a perpendicular passage improves the relationship between the residential Volta neighborhood with its plaza and the wasteland behind the site, while at the same time connecting both of the halls. The ensemble of masses and voids make for a small city inside the old shell with the circulation space resembling streets with multiple crossings offering a buffer zone between functions and preventing congestion.

Interaction between indoor and outdoor is created by a new botanical and community garden, by which the old monumental industrial building will be presented in a new scene, and change its representation; a new layer in history is added. Most functions like the sportshall and library will look out over this garden.

Case studies taught me how circulation space, voids and function can go together and strengthen each other through interaction, the blurring of boundaries and multifunctional use.

Passages and streets are the new infrastructures to structure the complex and create an interesting interplay of larger and smaller, served and serving spaces. The passages and streets in the sports and library area are located in the middle of the southwestern hall, connecting and complementing functions. This same hall also has a big boulevard that connects multiple entrances of the existing shell into its intersection while flowing over into a restaurant/living room. The passage in the spacious entrance serves like a bridge crossing the opened up monumental partition wall and connecting the two halls.

Multifunctionality is the second recurring theme of my design. Circulation space is not simply there to walk towards or around the functions. It serves for example as a tribune for the sportshall: The circulation spaces as well as the library and the sportshall utilize the length of the old walls and the beautiful multiple stories high windows on one side and connects a scala of like the restaurant, study spaces and offices on the other side of it.

The hall towards the seaside-looking north that faces the main street has a facade with a hierarchy of one big window in the middle accompanied by sets of smaller windows and ornaments on the sides of it. This facade holds a high level of symmetry like the rest of this hall. The southwestern hall in contrast doesn't have this amount of symmetry. Functions have been placed according to the qualities of each wall. This seaside-looking North facade has a higher elevation in the form of a small tower-like structure and fits perfectly for a lounge above the multifunctional event hall and looks out over the sea. The event hall is placed next to the boxed-in theater and has a complimentary dining space underneath it. The hall itself can be used for multiple purposes like weddings, exhibitions and of course the '*Kalamaja Days*'. Symmetry and voids go hand in hand for a grotesque and formal experience in this hall. Leading your gaze along the length of the hall.

The implementation of voids and lessening of circulation space increase with each story due to the level of privacy desired. Offices and lounges fulfill a relatively less public role and are as a result not placed on the ground floor where much more noisy and crowded activities like sport and other events will take place.

Formality and informality are also recurring themes. The staircases in my design differ per hall. The stairs in the Sports and Library part are designed as stages, creating an atmosphere of informality. The placement of the stairs is based on the view and positioning of the windows and the 'streets', mainly asymmetrical in the whole ensemble that makes up my southwest hall. The staircases in the event center have a symmetrical layout, stressing monumentality and making this hall more formal.



*Watercolor painting made by writer:
Fragment of the thick and sturdy outer walls*

New meets old as new functions have been placed according to the old. The hall facing the south doesn't possess an equal amount of symmetry. The qualities of the old shell are utilized by placing new functions that embrace them accordingly. Creating a dialogue or even dance in which the old leads. A new light glass and metal structure getting swept off her feet by the immovable heavy present, yet giving a little push back here and there through subtle architectural interferences. The interior is a mixture of light and spacious elements, orthogonal in nature and with a creme color palette that subtly flows over into the outer limestone walls. Steel, wood and natural stone come together in a minimalist and modern ensemble.

The design is also future proof in its ability to be altered for future purposes. The old shell will get a new roof, made of a steel truss system that covers the whole width of the halls and is well adjusted to the differences of the old shell. I complete the shell and treat it as a separate entity on its own. Inside a steel skeleton can be found with many different coverings depending on the functions. This inside structure can be removed through the newly created big entrances, creating more freedom for future purposes.

Relevance and progress reflection

Many case studies have been performed, sometimes into depth and other times on surface level. References of other public buildings ranging from residential spaces to cultural centers and libraries. These references gave me lots of insight into spatial concepts. However, these case studies and my own imagination have sometimes led me to overlook qualities of the existing buildings. My focus during the design process shifted gradually from only seeing particular aspects that appeal to me to executing a full blow research of the plot and its surroundings. Oversimplification lessened and design decisions were not simply implemented based on concepts but also respect towards the existing character as much as possible. The relationship between new and old got better along the way. There was a huge level discrepancy between new and old that I managed to improve while reassessing my stance as an architect. I redesigned the two halls and the new main entrance multiple times. Each time giving me more insight into possibilities of the partition wall for example and balancing radical, subtle and (un)necessary design choices.

Research on different scales gave me insights into possibilities and desired outcomes. These translated into principles. Voids as a tool to encapsulate the repetitive arched windows, heights and also box in functions to create a more privatized atmosphere. Volta should be a cultural center for all, a multifunction facilitator of all sorts of venues. Adding to the mainly homogenous residential landscape and improving the utilization of the site and corner of Kalamaja. It was a relatively large scale plot, within a culture and landscape unknown to myself. Sketches, photos, tours and of course talking with locals helped me grasp an understanding of Volta and tackling its problems and opportunities on social, cultural and much smaller physical scales. Reminding me that it is indeed a matter of scale.

My skill set has drastically improved, which will help with future transformations of heritage and transformations within environments other than my own. During the final part of the graduation course I will be refining my design, making scale models and using my art skills to paint and portray detailed experiences within my building. The last will also function as a tool to elaborate on the interior and also provide an in-depth portrayal and analysis of the interplay between the design and its environment.