

RE-IMAGINING LINNAHALL IN TALLINN, ESTONIA: SHAPING THE FUTURE OF A POST-SOVIET RELIC THROUGH ETHNIC INTEGRATION, ADAPTIVE REUSE, CONTEMPORARY ARTS, AND ECOLOGICAL RECLAMATION

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1. **ABSTRACT**

A relic of Estonia's Soviet occupation built for the 1980 Olympics, Linnahall is a contested urban site infused with complex narratives. Linnahall's imposing Brutalist architecture prominently occupies central Tallinn's central waterfront on the Gulf of Finland. Originally dubbed the Lenin Palace of Culture and Sports, Linnahall was renamed after the restoration of Estonian independence in 1991, after which its continued use was embraced as a concert hall, ice-skating rink, and large event space. The building rapidly deteriorated, however many complex social, economic, environmental, and regulatory obstacles prevented redevelopment during the post-Soviet transitional period. Programmed use of Linnahall's interior was abandoned in 2010; only the exterior remains in use today. Storm surges and sea level rise will likely affect portions of the structure by 2100. In 2017, the Port of Tallinn released Masterplan 2030 with initial concepts for the area surrounding Linnahall. The City of Tallinn also unveiled plans to renovate Linnahall as a conference center and concert hall. While strongly focused on development, connectivity, and economic revitalization, these plans are less clear about engaging Linnahall's important historic, cultural, and environmental conditions. This paper provides a detailed history of Linnahall for the first time in English. It also identifies a set of objectives for reactivating Linnahall in response to contextual conditions and plans released in 2017. The paper culminates in a three-phase conceptual framework emphasizing cultural identity, sea level rise, and heritage. Shifting through periods of temporary markets and art installations, the proposal ultimately envisions Linnahall as a seaside heritage park.

1.1 **Keywords**

Ethnic Integration, Post-Soviet Urbanism, Post-Industrial, Waterfront, Baltic

2 INTRODUCTION

Linnahall, a Soviet-era iconic building and civic space on the waterfront of Tallinn, has a tumultuous past and an uncertain future. Commissioned by Moscow for the 1980 Olympics, but designed locally by Estonian architects Raine Karp and Riina Altmäe, *Linnahall* has housed many activities since the restoration of Estonian independence in 1991, including an ice-skating rink, a 6000-seat concert venue, exhibition space, and various sports, retail, and transportation functions. With sweeping views of the Gulf of Finland and within walking distance of the passenger ferry terminal at Old City Harbour and the UNESCO-designated medieval district of Old Town, *Linnahall* is well positioned to be a significant civic asset. Of the cultural destinations within walking distance that could influence *Linnahall*'s redevelopment (Haas and Belanger 2017), the most significant include:

- *Vanalinn*: Old Town
- *Patarei*: the Battery
- *Kalasadam*: The Fishing Port / *Kalarand*: The Fishing Beach
- *Kultuurikattel*: The Culture Boiler
- *Rotermanni Kvartel*: Rotermann Quarter

Rapidly built during a time when quality construction materials and laborers were in short supply (Kurg 2006), the building began to deteriorate quickly after the 1980 Olympics. Since the 1990s, the City of Tallinn and various investment partners have repeatedly attempted to form partnerships to renovate the building and/or redevelop the surrounding site, but far-reaching complications have prevented either renovations or redevelopment. For a detailed historical timeline, see "History of *Linnahall*" (Section 5).

The building's interior was closed to formal programming in 2010. A small ferry terminal, café, and helicopter port continue to operate from *Linnahall*'s seaside exterior. While the building itself lapses further into disrepair, its vast outdoor plazas and staircases remain informally occupied. People occupy rooftop plazas of the facility for New Year's Eve festivities and summer outdoor concerts. The staircases are popular for small-scale social gatherings, often revolving around picnics, photography, fishing, and swimming. Most of the building's facades within reach are decorated in extensive graffiti.

As a symbol of Soviet occupation, *Linnahall* has been simultaneously a stark reminder of Soviet times and a node of multi-ethnic, the integrative activities of music, sport, and art. In addition to programmatic and cultural complexities, sea-level rise models suggest the building will be inundated during storm surges by the year 2100 (Haas and Belanger 2017). Further complicating proposed predevelopment, *Linnahall* is protected by historic preservation regulations.

As *Linnahall*'s exterior deteriorates, plans are being developed for both the building and the adjacent tourist port. In 2017, Tallinn City Council unveiled plans to renovate the building into a conference center and concert hall (Leis 2017), with a proposed budget of €100 million funded jointly from the Republic of Estonia and City of Tallinn (potentially assisted by private investment). Also in 2017, the Port of Tallinn released the winning proposal from their urban design competition to plan redevelopment at the Old City Harbour (Port of Tallinn 2017). The resulting "Masterplan 2030," by Zaha Hadid Architects (ZHA), proposes dense mixed-use infill across the port territory and adjacent to *Linnahall*.

2.1 Intent

The intent of this paper is threefold: (1) present a history of *Linnahall*, compiling many details from press and interviews for the first time in English, to facilitate the access of this information for international designers proposing redevelopment plans for the area; (2) identify design opportunities and constraints that reflect most recent plans released in 2017 by the City of Tallinn and the Port of Tallinn, building from previous work (Haas and Belanger 2017); and (3) develop a concept for the future of *Linnahall*, incorporating the above, and unfolding in three distinct phases:

Tõsta [Lift]: invest in urban place-making and alterations to *Linnahall*'s exterior to increase use,

Tõmba [Pull]: provide a gritty, culturally vibrant destination to complement adjacent redevelopment, and

Vajuta [Imprint/Submerge]: create an ecologically responsive seaside heritage landscape

This phased design concept strives to support *Linnahall*'s continued relevancy and cultural complexity by integrating creative ideas for adaptive reuse, addressing anticipated sea level rise, reconciling *Linnahall* with *Masterplan 2030*.

3 BACKGROUND AND CONTEXT

Approaching *Linnahall* from the city-side, it is impossible to comprehend the scale of the building. The height and slope of the staircases connecting to the city-side rooftop plaza inhibits views of the space above. Only upon cresting the staircase, does the incredibly vast extent of the building and its first plaza become evident. At the other end of that first 500-foot-long plaza, the grotto-like building entry is gated and locked. Pioneer trees grow from cracks in the concrete, and the building façade is decorated with graffiti. Ascending another set of stairs to the next terrace – reaching the rooftop of the main building – breathtaking 180-degree views of the Gulf of Finland unfold. Evidence of years of deterioration following hasty construction is visible in missing paving tiles, leaking rooftops, cracked walls, and crumbling stairs. The space recalls a ghost of the Chicago World Fair of 1893: built for one event, but persisting into the next era. Photographers relish the intense contrast of *Linnahall* and the towers of Old Town visible in the background, the seaside views and the extensive graffiti. Small groups gather, speaking different languages; and fishermen cast off the edge of the waterfront promenade into blue waters. Such are the contrasts of *Linnahall*: simultaneously an imposing and deteriorating symbol of Soviet occupation, and a meaningful, if gargantuan, urban fixture (visible from outer space) embedded with diverse narratives. The building itself covers approximately 7 acres (2.8 hectares); the building and site together comprise approximately 21 acres (8.5 hectares). *Linnahall's* vast terraces divide these site amenities (Figure 1):

- the city-side, street-level entry plaza,
- the city-side rooftop plaza bridging Rumbi Street and the former rail line (now a trail),
- the grotto-like entrance to the building itself, which housed diverse functions before 2010,
- the seaside rooftop plaza with heliport, café, and ferry terminal
- the inoperative water feature beneath the heliport, and
- the waterfront promenade adjacent to the Gulf.

Relentless concrete stairways and landings connect the terraces, evoking Mesopotamian or Mayan architecture. Around the building's perimeter, sloped and intentionally bastion-like berms enclose the building, inspired by the architect's interest in medieval fortifications (Kurg 2006, p. 47). The expansive parking lots flank the city-side rooftop plaza, and feature mature street trees that are barely noticeable, as they are sunken beneath the entry plaza, and given the scale of their surroundings.

By 2006, *Linnahall* already resembled “a concrete scar on Tallinn's shoreline” (Haas, 2006, p. 129). Already at that time, the site's deterioration was self-evident. In interviews (p. 137), a city official described plans for “a private developer to renovate *Linnahall* out of pocket, beginning in January or February 2007, in exchange for the rights to develop the shoreline in front of it, 50 years from now.” Haas observed, “Incorporating generous green roofs into plans for *Linnahall's* renovation could make a major contribution to green and blue space in the center city,” yet “*Linnahall...* brings into question, whether demolition or refurbishment is the best choice” (p. 129). At that time, a huge statue of Estonian folk hero *Kalevipoeg* occupied the top of the stairs of the city-side plaza -- whether in an invitation to multiculturalism or a reclaiming of contested space, was unclear (p. 120). *Linnahall* persisted through the restoration of Estonia's independence, while the removal of other Soviet occupation-era monuments such as the 1947 Bronze Soldier catalyzed ethnic conflict and caused rioting (Ehala 2009).

Linnahall is a concrete reminder of the era of Soviet times, and looms out of scale with Old Town in the background, for any visiting tourist arriving by passenger ferry. During the authors' visit to *Linnahall* in 2016, anti-fascist sentiment charged the graffiti-covered building façades with political intensity.

Seokho Hwang (2017) notes that the minority Russian-speaking population, many of whom immigrated to Estonia during Soviet occupation, may view the erasure of the remaining traces of Soviet architecture differently than the Estonian majority. With the redevelopment and consequent eradication of Soviet-era buildings and public spaces, “both the remaining Soviet material traces and minorities in Tallinn are neglected by nationalism and capitalism” (Hwang 2017, p. 8). As such, *Linnahall* may appear to be at the nexus of polarizing views toward Tallinn and a sense of civic identity, yet the site's history reveals nuance and complexity (Section 5).

Kurg (2006) reflects on the possibility that, while *Linnahall* was built during Soviet occupation in a brutalist architectural style, it represents something more than occupation. He observes a shift in public opinion; in the 1980's Estonians viewed *Linnahall* with “contempt rather than pride,” even when seeing their first Western rock concerts there (Kurg 2006, 48). During the 1990's, there was a movement to erase many of the city's Soviet-era symbols, removing monuments and re-cladding buildings. But by 2004, that sentiment had shifted; when developers proposed demolishing *Linnahall* to create a mixed-use district with private yacht parking, public support advocating for *Linnahall's* continuation was strong. Nostalgia, and a renewed

interest in the now-rare architectural design proved more desirable than new development (already well represented in Tallinn). *Linnahall* had become part of Tallinn’s identity, and “a space that refused to conform to the dominant patterns of thought” (Kurg 2006, p. 53).

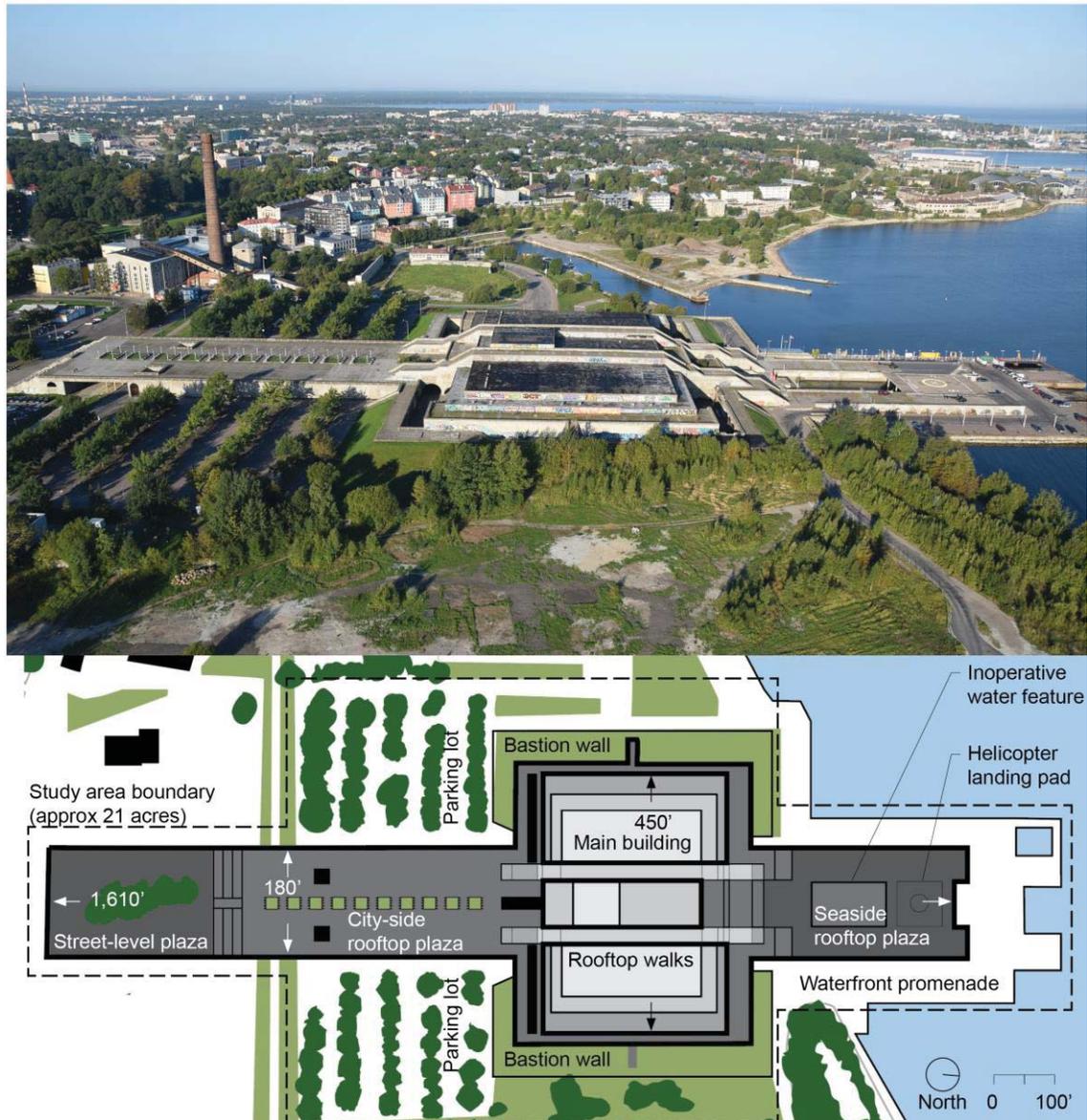


Figure 1. Birdseye view of Linnahall from above Old City Harbour alongside spatial diagram of Linnahall site (2018). Photo source: Maili Saia. (2014). View to Tallinn City. Obtained from Flickr under CC BY-NC-SA 2.0 license on 21 Dec 2017. <https://flic.kr/p/oHGfRL>. Diagram by B. Belanger 2018

As a grandiose gesture of socialist modernism, *Linnahall's* plan imprinted imposing plaza spaces of a scale to suit authoritarian regimes, and making the individual site user feel small. At a city planning scale, *Linnahall's* designers aligned its primary axis with the Viru Hotel, built during Soviet occupation in 1972 as the first high-rise in Tallinn. The planned axial alignment of the two buildings is thought to be part of planners’ attempts to connect the city center with the waterfront (Kurik, 2017). While the intended visual axial alignment is undeniable, true physical connectivity between the two Soviet-era buildings is less successful: interrupted by curves of pre-existing infrastructure (rail and tram lines, arterial streets). However,

the intention to connect the city to the waterfront by re-alignment of infrastructure associated originally with industrialization and military facilities, suggests a shift toward post-industrial planning (Kurg 2006). In an alternative interpretation, this planned axis could simply have been planned to connect the two largest Soviet-era landmarks imposed on Tallinn's cityscape, regardless of infrastructural context.

In the future, *Linnahall's* location adjacent to the coast faces threats from sea-level rise. Mapping sea-level rise and storm surge forecasts revealed that Linnahall will be inundated during storm-surge events by the year 2100 (Haas and Belanger, 2017). In current conditions, maximum storm surge would reach 3.1 meters, flooding Linnahall and adjacent areas planned for redevelopment (Figure 2). By 2100, sea level is expected to rise 74 cm in Tallinn, and maximum storm surge will likely reach 4.5 meters, (Kont et al, 2008 and Suursaar et al 2011). While storm surges are wind-driven and expected to be brief in duration, the redevelopment area potentially requires sea walls or other protective measures.



**Figure 2. Sea level rise and storm-surge forecasts for Linnahall and surrounding context (2018).
Data source: Kont 2008 and Suursaar et al 2011, AutoCAD base map courtesy of Tallinn City
Planning.Diagram by V. Haas 2018**

3.3 Old City Harbour Master Plan 2030

Waterfront cities across Northern Europe are investing in post-industrial port districts. Malmö, Sweden's Western Harbor is recently completed and serves as a landmark in sustainable urbanism (Austin 2013). Copenhagen's Nordhavn port redevelopment is under construction and will house 40,000 people and the same number of jobs (By and Havn, n.d.). Stockholm, Oslo, and Helsinki are also in the process of redeveloping their post-industrial waterfronts.

In 2017, The Port of Tallinn released *Masterplan 2030*, a plan for redeveloping the Old City Harbour (Figure 3). The goal was to "create a comprehensive, long-term solution to form the basis for property development in the port area and to connect city and public space with the functions of the port" (Port of Tallinn 2017). The plan was the winning entry of a yearlong design competition sponsored by The Port of Tallinn. Titled "Stream City", the design is the result of a collaboration of a the multi-disciplinary design team, including among others: design lead, Zaha Hadid Architects (ZHA), with urban design, landscape architecture, and sustainability consultancy Tyréns UK.

The redevelopment area is re-envisioned to be both a gateway to Tallinn and a link between the city center and the port. Drawing on a stream system metaphor, the master plan proposes a highly

connected pedestrian network with a variety of public spaces, featuring a “planted highline” elevated promenade that separates industrial port activity from pedestrians. In order to create a “unique world-class public realm”, the designers frame the plan around connectivity, placemaking, principles of sustainability, and values of integration (ZHA 2017, p. 2).

Immediately east of *Linnahall*, the plan proposes the “North Commercial Quarter,” and depicts “Linnehal [sic] Marina” extending into the water, and a courtyard-rich commercial office neighborhood on terra firma (ZHA 2017, p. 2). Another block east, the plan calls for hotels, service apartments, a plaza, and leisure amenities including a “leisure spine,” pools, saunas, and a wellness center (p. 1). Circulation diagrams illustrate pedestrian connections to *Linnahall*’s waterfront promenade, but not explicitly to the city-side and street-level plaza (p. 6).

Most significantly, the plan calls for an aerial gondola-style “cable car” connecting the North Commercial Quarter to Old Town, routed directly over *Linnahall*’s south rooftop plaza (Figure 3). The three-quarter mile (1.2-km) gondola ride would afford passengers aerial views of the city center, Old Town, Old City Harbour; and, most relevant to this research, a close overhead view of *Linnahall*. The phasing plan calls for North Commercial Quarter construction in Phase 1, with incremental rollout through the fourth and final phase (ZHA 2017, p. 4)



Figure 3. Rendering of Masterplan 2030 by Zaha Hadid Architects adjacent to Linnahall (2017). Renders by VA. Reproduced with permission of Zaha Hadid Architects

Aligning with the Port of Tallinn’s goal of property development, the plan emphasizes commercial property and entertainment, noting: “Popularity with the local population as a distinctive shopping and entertainment area will be critical to the success of the master plan” (ZHA 2017, p. 4). The plan gives only brief mention to *Linnahall* and other nearby cultural heritage sites; renderings depict *Linnahall* as a static element in the landscape: scrubbed clean, but un-renovated, appearing roughly as it does today.

4 METHODS

Having identified a gap, in that *Linnahall*’s site planning needs to be reconciled with the masterplanning for the port’s revitalization as a whole, we set a research goal of developing design concepts that reactivate *Linnahall* while addressing sea level change and Tallinn’s cultural context. In previous work (2017), we identified a set of objectives for the future of *Linnahall*, organized into three themes: cultural, experiential, and ecological. This paper revisits those objectives in light of recent plans for

Linnahall renovation and Old City Harbour redevelopment (Section 6.1). We use Deming and Swaffield's (2011) categories to define our methods, dividing our process into three stages: exploration, evaluation, and design concept development.

To explore the site's history, cultural context, and build an understanding of cultural and political issues affecting *Linnahall's* redevelopment, the (Estonian-American) author Haas used *Secondary Description* to summarize the history of *Linnahall* from its inception, translating text from Estonian to English as necessary (Section 5). Sources include maps, building plans, and other materials collected from the City archives in Tallinn, as well as books, scholarly articles, and development plans described in Estonian news media outlets. Both authors used *Secondary Description* to review scholarly articles, online sources, and planning documents for background and precedents. Using *Direct Observation*, Haas built knowledge of *Linnahall* from repeated site visits and interviews with City Officials, particularly from 2003-2006 and 2008-2009, exploring the potential of public space to promote ethnic integration in her thesis (2006). *Direct Observation* also informed our original and revised opportunities and constraints through a recent site visit (2016) and discussions with City Officials regarding the future of *Linnahall*.

To evaluate design opportunities and constraints, students under Belanger's direction used *Descriptive Case Studies* for a class assignment studying a range of waterfront developments, which served as a starting point for our design precedents. Using *Descriptive Modeling* to create sea level rise models, Haas referenced published sea-level rise forecasts (Kont et al 2008, Suursaar et al 2011) and challenged students to develop 3D models of *Linnahall* using SketchUp and sections showing the effects of sea level rise on the building (Haas and Belanger 2017). Figure 2 is an additional interpretation of sea level rise using contours and AutoCAD data provided by the Tallinn City Planning office. Using *Evaluative Methods*, we identified the critical design opportunities and constraints for the site, and compared those with development strategies in *Masterplan 2030* and the City Council's 2017 design proposal. Specifically, we identified significant factors and historic patterns (e.g. repeated failed redevelopment attempts and Tallinn's ongoing need for ethnic integration), conditions for human experience (e.g. people arriving at the port and engaging in cultural activities in the district), and influential environmental conditions (e.g. sea level rise). With those considerations in mind, we analyzed the existing *Linnahall* planning proposals for ways in which they addressed (or failed to address) the objectives we identified as critical to the future of *Linnahall*.

Finally, using *Projective Design*, we developed a design concept for redevelopment with three phases (Sections 6.2 - 6.5), responding to *Linnahall's* shifting environment, which allowed Belanger to prepare diagrammatic phasing plans. Based on our evaluation, we identified opportunities to engage with the port masterplanning proposal, such as physically connecting with *Masterplan 2030's* elevated pedestrian promenade and creating an aesthetic experience for cable car riders. Other design strategies focus less on formal composition and more on the agency of design operations. For example, we propose leveraging the arts and culture inertia in the immediate district to address ethnic integration. Similarly, we advocate for indeterminate formal outcomes as sea level rise and storm surge transforms the *Linnahall's* building and site into a heritage park in the third phase.

5 HISTORY OF LINNAHALL

"Commiss love concrete, but they don't know how to make it" (O'Rourke 2007, p. 74).

5.1 Linnahall Planning and Construction

Tallinn City archives date *Linnahall's* planning back to 1972, after the 1971 city master plan called for a facility to house 6,000 spectators (Karlep 2017). In 1974, Moscow made the decision to host the Olympic regatta in Tallinn (Lindpere 2012). Other locations in Tallinn besides the port were considered for the 6000-seat concert-hall and sporting facility: for instance in Lasnamäe, in Lilleküla, in Mustamäe, and in Kadriorg. *Linnahall's* construction began in 1975, with the demolition of old factories that had previously occupied the site. The historic plans show a significant area of fill extending into the water, most likely spoil from excavating the below-sea-level building interior. Reviewing historic photos and the construction documents shows the seaside pavilion was built out significantly beyond the original shoreline (Figure 4). *Linnahall's* architects were Raine Karp and Riina Altmäe with interior designers Ülo Sirp and Mariann Hakk. According to architect Raine Karp (in an interview with Karlep, 2017),

“During Linnahall’s construction, we could do what we wanted. There was no specific prescription; they simply wanted a hall to house 6000 people, which could also be used as a hockey arena... It was our luck that at that time there was no bureaucrat at our neck. We consulted with philharmonic people and sports people, and then we decided on the solution ourselves... Today it would not be possible to bring such a large project to life so quickly.”

The construction process itself, however, was another matter, as the architect recalled (Karlep 2017):

“Typical Soviet-era problems: materials could not be sent, it could not be constructed properly. In addition – general chaos. No particular attention was directed to Linnahall’s construction. The whole time, attention was focused on Pirita’s sailing center, the better part of Tallinn’s construction workforce was directed there... The whole undertaking was very mixed up... the Linnahall project was in some ways successful, although its execution was rushed.”

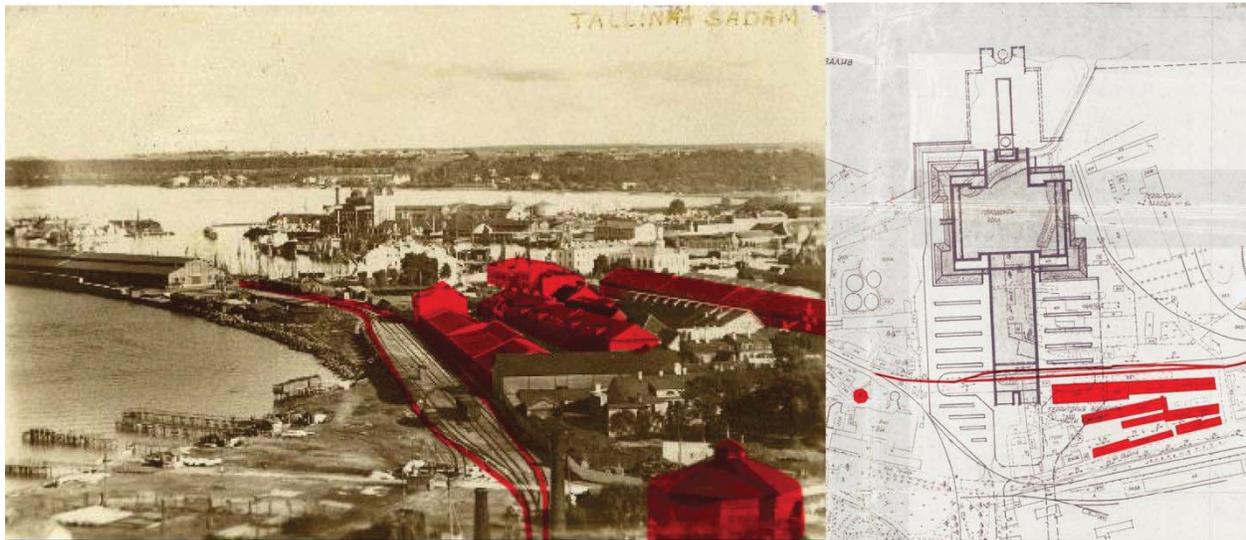


Figure 4. Industrial condition in 1925 and original Linnahall construction documents. Buildings highlighted in red key the location of the Linnahall footprint to the 1925 photograph. Images prepared by V Haas (2018), utilizing source images provided from the Tallinn City Archives.

Linnahall’s construction employed 540 people in 1980 (Küla 2013). The total cost of demolition and construction was 8 million rubles (Karlep 2017). According to historic exchange rates, this amount would have been equivalent to \$407,105 in 2017. However, this currency conversion does not adjust for the disparity of purchasing power between the dollar and ruble during Soviet occupation; the cost of renovating *Linnahall* has most recently been estimated at €100 million or \$125 million, wildly disproportionate to the original Soviet-era investment for *Linnahall’s* construction – regardless of how one calculates exchange rates.

5.2 Programming After the The Olympics

After 1980, *Linnahall* was used for sporting events (including hockey), fashion shows, and rock concerts (Lindpere 2012). Originally named the Lenin Palace of Culture and Sport, the facility’s name was officially changed after the restoration of Estonian independence in 1991 to *Linnahall*, meaning “town hall.” *Linnahall* was never used as a town hall; rather the name began to be used already by 1988 for its sound similar to *Leninhall* (Lindpere 2012).

In 1995, the *Lindaliin* ferry terminal was established at *Linnahall*. In 1997, a dispute arose between long-term leaseholders of *Linnahall* and the facility’s director (Lindpere 2012); at this time, *Linnahall’s* designation as a historic monument was first discussed (Küla 2013). By 1998, it was clear that *Linnahall* required renovations: the roof of the ice skating hall leaked, vandals had damaged the seating, and the plumbing needed immediate repair. That same year, Deputy Mayor Peeter Kreitzberg observed *Linnahall’s* construction was already showing extreme flaws; from the City’s point of view, it didn’t make sense to

maintain *Linnahall* as a concert venue (Lindpere 2012). In 1999, ETP Grupp established the Copterline helicopter terminal, with architect Peep Urb designing the helicopter pad terrace.

5.3 Visions for Renovation and Redevelopment

Around 2000, the firm Österled enlisted Tallinn's Technical University to evaluate *Linnahall*'s structural integrity; the University concluded the framework of the building was structurally sound and could support renovations. Österled then hired Swedish architectural firms, Wingård Sandell Sandberg and Arkitektbyrå AB, to propose concepts to broaden *Linnahall*'s function and promote economic expansion. They proposed to convert *Linnahall* into an international research center or educational institution, while preserving the facility's concert hall and conference center functions (Lindpere 2012). This project's momentum was lost by 2002, when the *Linnahall* director left Tallinn to work for Österled in Stockholm.

In addition to the *Lindaliin* ferry and Copterline, the occupants of *Linnahall* were as follows in 2000: a children's sport training facility, judo club, bowling alley, a music store, sound studio, auto customization (sound & light), catering, Tallinn City Archive's warehouse, and *Linnahall*'s own administration. By 2000, *Linnahall* hosted around 80 events per year, and the ice skating hall was rented 85% of the time. However, Tallinn Mayor Jüri Mõis announced plans to close *Linnahall* and move many of these functions to *Saku Suurhall*, the new 10,000-seat arena just outside of Tallinn (Lindpere 2012).

Österled's plans for renovation resurfaced as "Forum Tallinn," proposing to use European Union funds for redevelopment. The City and the *Linnahall* board of directors disagreed about this plan, however; Deputy Mayor Rein Lang said the proposed programming lacked perspective, and would not serve the City's best interests; the *Linnahall* board of directors maintained it remained the City's responsibility to define how the project should proceed.

The City assumed ownership of the land beneath *Linnahall* in 2001; confusion over land ownership had been a point of concern for the potential Swedish developer Österled. In 2002, Österled brought a proposal to the City to divide the *Linnahall* parcel into five pieces, leaving the central portion in City ownership and selling the surrounding parcels to finance the development of a conference hall. The City terminated the "Forum Tallinn" project in response (Lindpere 2012).

A 2003 international design competition for *Linnahall*'s redevelopment resulted in proposals from COO Arhitektid, Kosmos, and Rein Murula, among others (Kaan 2003). The terms of the design competition required:

- siting a 4000-seat conference center (rather than a concert hall),
- preserving key elements of the architecture, and
- proposing redevelopment for the neighboring parcels (totaling 17 hectares or 42 acres).

Linnahall's value was estimated at the time at 39.6 million EEK (\$4.65 million in 2017 dollars). One proposal, from Danish firm Hvidt & Molgaard (in association with developer Manudent AS), proposed razing *Linnahall*, keeping only lower level of as a platform for 3-story shops, apartments, and cafés (Põld 2004). Prime minister Urmas Paet's response was to pronounce *Linnahall*'s removal was 'not likely possible' (Küla 2013). Developer Urmas Sõõrumaa stated in an interview with the press, "The city basically wanted to give me the building in 2003-2004; however, nothing came of it... I would have fixed it up for €50 million, and the city would have a functional conference venue today" (Reimar 2017).

The Deputy Mayor Rein Lang reacted against proposals to raze *Linnahall* by pursuing historic conservation. The historic preservation office enlisted the firm DoCoMoMo to analyze the historic significance of *Linnahall*; the consultant recommended *Linnahall* for preservation. In December of 2002, Karl Öiger of Tallinn's Technical University had been enlisted to evaluate the building's structural stability; he concluded rather colorfully (in 2004), "I dare to reckon, that even then, if in 10-20 years nothing is done, the hall will still be standing," (Lindpere 2012). In 2003, Deputy Mayor Toomas Vitsut qualified that measures for *Linnahall*'s historic conservation should not preclude redevelopment, if a suitable investor could be found. In summer of 2004, Piret Lindpere and Veljo Kaasik of the historic preservation office reacted with new special conditions to preserve *Linnahall*'s interior concert hall and bastion-like exterior as architecturally unique. The Estonian Architect's Union also announced their opposition to redevelopment of the site. At that time, Professor Karl Öiger estimated that *Linnahall* could be renovated at a cost of €23-30 million (Paulus 2004).

In May 2009, Deputy Mayor Taavi Aas and the US-based firm Tallinn Entertainment LLC agreed on a plan for restoration and conversion of *Linnahall*. The ice skating rink was closed. In December the last conference event was held: an exhibit of nature photos. In 2010, all activity within *Linnahall* ceased (Küla 2013). In August 2010, the City agreed to lease *Linnahall* to Tallinn Entertainment LLC, founded by

Ronald S. Lauder (also the CEO of Estée Lauder Companies). The terms called for renovation of the building for 99-years, in exchange for the right to raze and redevelop as a hotel and entertainment center after that time – almost the same terms for a public private partnership proposal that were under discussion three years earlier (Haas 2006).

Reform party speaker Valdo Randpere, spoke out in opposition to the proposal, which was reputed to propose to redevelop *Linnahall* as a giant casino, and under which terms the City would not charge rent (\$800,000 per year) for the first 15 years. *Linnahall* renovations at that time were estimated to cost 700 million Estonian crowns, or \$6 million (Delfi 2010).

Deputy Mayor Taavi Aas claimed in January 2010 that Tallinn Entertainment LLC was approved for a loan up to 2.8 billion crowns (\$238 million) from the US government to redevelop *Linnahall* and other projects within Tallinn (Tere 2010). By February, however, this claim was in disrepute and denied in a “combative” press conference by James Land, press attaché for the US Embassy in Tallinn (Joost 2010).

Tallinn Entertainment LLC was registered in 2007 in the state of Delaware, as owned equally by: RSL Capital (itself owned by Ronald S. Lauder), GF Capital Management Advisers, and Remi International (Joost 2010). Delaware is known for the absence of a sales tax. Rumors soon surfaced of arrests in Hungary and the US after accusations of corruption, bribery, and tax evasion related to the proposed project (Skyscraper City 2011). The Tallinn Mayor at the time, Edgar Saavisaar of the Center Party, was suspended after being suspected for accepting bribes from 2014 to 2015. Another suspect in that case was Aivar Tuulberg, a shareholder in the firm Rand & Tuulberg responsible for the redevelopment of *Kuulturikattel* (the Culture Boiler) adjacent to *Linnahall* (Oll & Tambur, 2015). One of the several bribery charges against Saavisaar related his acceptance of €50,000 from Tuulberg to ensure Astlanda Ehitus and Rand & Tuulberg AS would win the €3,146,664 construction bid to redevelop *Kuulturikattel* (Berendson, Reimar & Kund 2016).

In September 2014, the City announced plans to share the “stagnant” seaside portion of the *Linnahall* site with private developers, permitting the construction of additional buildings by private investors; the motivation for this proposal was to attract investors to renovate *Linnahall* as a conference center for 2018’s 100th anniversary of the Republic of Estonia (Värk 2014). Finding great potential in the seaside platforms of the building, Arhitekt Must (apparently unsolicited) proposed converting the central seaside portion basin of *Linnahall* now below the helicopter landing pad into a swimming pool; their proposal was featured in the Estonian newspaper *Delfi* in 2016.

5.4 Tallinn Envisions a New Renovation Plan

In September 2017, students of Tallinn’s art academy *Tallinna Kunstigümnaasiumi* were commissioned to design and paint on Linnahall’s façade a graffiti mural of Tallinn’s skyline, which they titled *Peegelpilt vanalinnast* [“Mirror image of Tallinn”]. The commission was funded first for €15,000 by Märts Sults, Pirados Studios’ and the Pirados Brand, with an additional €10,000 contributed by acting Tallinn mayor Taavi Aas (Kanarbik 2017). (In 2010, Aas was the Deputy Mayor involved in the “combative” dispute with the US Embassy regarding government financing for *Linnahall*’s redevelopment.)

The 2017 graffiti commission was organized by the *Linnahall* board of directors (Tallinna Linnahall AS), but resulted in a dispute with the historic preservation office, which maintained that the painting of *Linnahall*’s façade was unlawful, and should be removed. Tallinna Linnahall AS plans to ask for an extension until 1 June 2018 of the deadline to remove the mural. A petition supporting the continuation of the graffiti exhibit garnered 1000 signatures in an 85-hour period (Kanarbik 2017), demonstrating local support for the project.

Also in 2017, the Estonian government once again resolved to work with the City of Tallinn to renovate *Linnahall* into a conference center, proposing to invest €40 million to be matched by €60 million from the City of Tallinn, the latter possibly shared with an investor interested in renovating *Linnahall*’s concert hall. This led to debate in the press about whether investing €100 million in civic funds would be the best investment for Estonia, given private investors’ hesitancy to undertake the project (Leis 2017). Tallinn City Council produced a video detailing a design proposal that would renovate *Linnahall*, including a 5000-seat concert hall, preserve the existing structure and enhance functionality by adding green roofs and a glass-walled gathering space (possibly intended as a conference center) to the currently underutilized and expansive rooftop area with a view of the sea. Support for the project would be divided between the Republic of Estonia and the City of Tallinn, and construction would begin at 2019 at the earliest, pending approval of the budget from Brussels (ERR News 2017). In this design, however, the city-side of *Linnahall*

facing Tallinn is left virtually unchanged (although the €25,000 graffiti mural has been removed in the renderings).

Linnahall's interior corridors have low ceilings and the building is nearly windowless. Even with a €100 million overhaul, it would be difficult to transform *Linnahall* into a structure with an abundance of natural light. The City Council plan proposes to add an extensive, glass-walled sea-side rooftop space – which may have the potential to meet contemporary expectations for a world-class conference venue, particularly given the proximity to Old Town and the ferry terminal.

6 SHAPING THE FUTURE OF LINNAHALL

6.1 Design Objectives for Framing Linnahall’s Redevelopment

In previous research, we identified a set of design objectives, organized around three themes: cultural, experiential, and ecological. Table 1 presents a revised set of objectives, responding to Tallinn City’s plans for *Linnahall* renovation and *Masterplan 2030*, both released to the public in 2017.

Table 1. Design Objectives. (adapted from Haas and Belanger, 2017)

| Theme | Objectives |
|--------------|--|
| Cultural | <ul style="list-style-type: none"> - Address contested social and historic narratives of occupation and ethnic integration - Re-integrate <i>Linnahall</i> with the developing arts and cultural district surrounding it - Integrate <i>Linnahall</i> with adjacent port redevelopment - Ensure that current user groups (inter-ethnic youth subcultures, ethnic minorities, neighborhood users) still feel welcome as the surrounding neighborhood gentrifies - Conform to shifting requirements for protection as a cultural heritage monument - Display transparency and encourage public participation during the planning process - Maintain <i>Linnahall's</i> character to retain a sense of identity valued by local population |
| Experiential | <ul style="list-style-type: none"> - Provide accessible public space for different size groups and different user types - Enhance the views of the sea, and views from the sea - Build a broader base for tourism by adding cultural interest along the waterfront - Enhance <i>Linnahall's</i> function as a gateway for tourists arriving by sea - Make <i>Linnahall's</i> street-level threshold plaza more inviting and more accessible - Create a visual experience for people looking down onto the site from the cable car - Develop programming to complement and provide cultural alternatives to the commercial and entertainment program of <i>Masterplan 2030</i> |
| Ecological | <ul style="list-style-type: none"> - Provide site design strategies that address sea level rise - Soften <i>Linnahall's</i> Brutalist aesthetic through landscape interventions, integrating it with Tallinn’s present character and the <i>Masterplan 2030</i> planting design strategy - Integrate ecosystem service strategies to improve landscape performance and celebrate native ecologies of the regional waterfront - Integrate low energy, high efficiency systems on par with recent public space design in other Northern European cities. - Maximize unique site features, notably the bastion walls and stairways |

6.2 Re-imagining Linnahall’s Future

Linnahall is valued by diverse people for a variety of reasons and is protected by historic preservation, so it’s unlikely to be razed and replaced. With a record of unsuccessful redevelopment attempts, deteriorating building conditions, and uncertainty about investing €100 million of public funds for renovation, we assert the building’s interior is unlikely to attract major re-investment. So the question posed by a leading Estonian media outlet remains, “What do you do with a giant Soviet-era ‘mothership’ in the middle of Tallinn?” (Estonian World, 2016). One answer lies in *Linnahall's* cultural past and its environmental future.

Linnahall “stand[s] simultaneously as a monument to a bygone era and as a sign of the beginning of a new one” (Kurg 2006, 53). As part of Tallinn’s identity, as a symbol of the past, and as an icon of new beginnings, *Linnahall* will continue to refuse to conform to redevelopment status quo. Neither simply a

symbol of Soviet occupation, nor simply an icon of contemporary multi-ethnic civic pride, *Linnahall* is rather a complex layering of narratives for generations of Tallinn residents.

Our design concepts propose a gritty counterpoint to the polished redevelopment proposal in *Masterplan 2030*, extending the legacy of *Linnahall* by building upon its deeply-rooted and diverse cultural heritage. This design concept acknowledges that storm surges will likely flood the lower third of the *Linnahall* building by 2100 (Haas & Belanger 2017). We favor ultimately allowing natural processes to overtake the building, transforming it over time into an outdoor heritage site. The resulting landscape will serve Tallinn as a public space, available to all for engagement and interpretation. Responding to cultural, experiential, and environmental opportunities and constraints, our proposal unfolds in three phases.

6.3 *Tõsta* [Lift]

The first phase, *Tõsta* [Lift] strives to enhance *Linnahall*'s occupiable civic space quickly, attracting visitors through site improvements and temporary programming, promote ethnic integration, and elevate awareness of sea level rise. The site's vast exposed plazas would become considerably more comfortable with tree plantings, enhanced site lighting, comfortable seating grouped to promote conversation, and other pedestrian amenities. Some of these same ideas are also present in Tallin City Council's (2017) renovation proposal.

Tõsta [Lift] would include a mix of temporary and permanent art installations, recreational activities, market booths, and play areas to invite residents and tourists to explore *Linnahall*, thus attracting activity to the site. Offering both warm- and cold-weather activities would ensure year-round programming and vitality. A similar strategy has been implemented on Copenhagen's Paper Island, where planners strived to create a "scrappy and appealing" cultural destination, which has attracted creative businesses and artists (O'Sullivan, 2016).

The street-level and city-side rooftop plazas would feature formal bosques of trees following the grid and axial alignment of the original layout. The existing, blocky concrete seats could be enhanced with warmer and softer materials, and new seating areas could be integrated among the trees. The street-level plaza, programmed with market vendors, a four-season water/ice feature, and a creative play area for children would activate the gateway to *Linnahall* from the city-side.

On the city-side rooftop plaza, intensive green roof plantings would provide tree canopy and shade. Additional seating, large-scale outdoor sculptures, temporary graffiti art and other exhibits, and gas fireplaces for winter gatherings would activate space.

On the rooftop of the main building and on the sea-side rooftop plaza, panoramic views of the gulf would be maintained, limiting the introduction of vertical elements. Taking advantage of the open sky and expanses of stairs, an informal outdoor theater would provide a venue films and concerts, with seating on the seaside stairs and terraces.

Throughout the site, current infrastructure would be creatively adapted to form enhanced recreational space. The citizen-led transformation of abandoned ironworks facilities in the Ruhr District in Germany provides many transferable design strategies. Now known as Landschaftspark Duisburg-Nord, the former industrial complex features climbing walls, ropes courses, panoramic overlooks, outdoor hammocking rooms, slides, interactive light installations, and other amenities for adults and children (Landschaftspark Duisburg-Nord, 2018). Most recreational amenities were adapted using existing industrial site features.

To address contested social and historic narratives of occupation, site improvements and art installations would feature themes promoting ethnic integration. In addition to concentrating on past conditions, artists would collaborate with environmental scientists and political leaders to nurture integration by looking forward. *Linnahall* could become an interactive and didactic set for raising awareness about sea level rise, and provide inclusive solutions that benefit all residents of Tallinn. While addressing sea level rise generally, the theme would also provide a platform to describe the long-term plan for *Linnahall* outlined here.

6.4 *Tõmba* [Pull]

The second phase, *Tõmba* [Pull] reflects *Masterplan 2030* objectives by improving access to *Linnahall*'s rooftop plazas, enhancing the exterior with architectural additions (similar to the City's 2017 plan), and creating an immersive art installation for the building's interior. The ZHA design team's proposal to elevate pedestrians above ground level on a highline linear park presents an opportunity to physically connect the proposed pedestrian network to *Linnahall*'s rooftop plazas. An elevated connector would pass

through the North Commercial Quarter, leading directly onto *Linnahall's* southern rooftop plaza. The proposal would not only enhance vitality at *Linnahall*, it would also support *Masterplan 2030's* objective to connect with the existing "green network," specifically identifying *Linnahall* as a destination (ZHA 2017, p. 5). To further enhance accessibility, an outdoor elevator would connect *Linnahall's* street-level plaza with the city-side rooftop plaza, and by extension the proposed highline linear park. A large-capacity elevator would provide access for pedestrians as well as artists and vendors installing fixtures on the city-side rooftop plaza; security measures would be implemented to prevent vandalism or mischief. The elevator would be placed between the two street-level staircases with doors on the front and back.

To connect to the local art and cultural communities, an immersive art installation would occupy *Linnahall's* interior. This phase builds upon *Linnahall's* recent engagement with students of Tallinn's art academy *Tallinna Kunstigümnaasiumi*. The art installation would be intended for removal or relocation once sea level rise and storm surges threaten *Linnahall's* below-grade interior. The art installation would provide a creative, interactive, and highly unique experience. Our concept is inspired by Meow Wolf's *House of Eternal Return*, a 20,000 square foot former bowling alley in Santa Fe, New Mexico, purchased by an art collective and transformed into a dreamlike world of multiple dimensions and interactive experiences (Meow Wolf, 2018). The surreal Meow Wolf exhibit, which opened in 2016, has been featured in publications around the world, and "models for us the art of synthesis, of adaptive reuse, a key component of all creativity" (Linett, 2017, p. 368). The exhibit was constructed by a team of dozens of artists, engineers, and carpenters of various trades in fourteen months. Attracting over 400,000 visitors in the first year, Meow Wolf estimates it has injected \$6 million into the local economy and an additional \$13 million in marketing value to Santa Fe (Rodgers, 2017). Serving to attract visitors into the nondescript building, Meow Wolf's entrance features gigantic statues (a blue wolf, a robot smelling a flower) in scale that would be effective at *Linnahall*, and parallel to prior temporary art installation and schemes for a large statue of Estonian folk hero *Kalevipoeg* within the harbor (Haas 2006).

6.5 *Vajuta* [Imprint / Submerge]

The third and final phase, *Vajuta* [Imprint/Submerge] acknowledges that wind-driven storm surges will likely flood the entire port area for short periods of time by 2100, by which time *Linnahall* will have fallen further into disrepair. Inspired by the bastion-like geometric landforms bounding *Linnahall* and Tallinn's Old Town wall, sculptural forms would allow the Baltic Sea to reclaim portions of the site, memorializing the site's history and encapsulating culturally significant civic space. While *Masterplan 2030* and other future developments can incorporate flood protection systems into infrastructural plans, in these schemes *Linnahall* itself remains vulnerable to storm surges. With a below-grade interior, flooding is likely to become an increasing threat to *Linnahall*. As Tallinn's first post-industrial waterfront redevelopment, *Linnahall's* engagement with the water's edge is central to the design. Armoring *Linnahall* with sea walls or other protective measures might delay flooding, but it would simultaneously destroy the essence of *Linnahall's* relationship to the sea.

Historic preservation would have us treat the building as a static object; complete renovation would require flood protection. Instead, emergent preservation maintains the cultural legacy of the site while allowing natural processes to occur unchecked.

Once storm surges threaten the integrity of the interior space's art installations, *Linnahall* would begin the transition into a seaside heritage park, allowing people direct access to the water and permitting flooding during storm surges. The installations proposed in earlier phases *Tõsta* and *Tõmba*, are either located in elevated areas safe from 2100's projected storm surges, or designed to withstand the occasional wind-driven storm surge, or in the case of the immersive art exhibit, removed / relocated in time. By selectively retaining portions of the structure, particularly the plazas, staircases, and bastion walls, the site would retain the forms of cultural legacy that are meaningful to Tallinn's residents. In some areas, the interior spaces of the building would be demolished; in other places, they would be sealed off from public access and structurally enhanced to continue supporting plazas above. With the majority of *Linnahall's* rooftop serving as plaza space, it is impossible to separate the site from the building. However, by vacating and reinforcing the interior space, it is possible to remove the function of the building but retain the site.

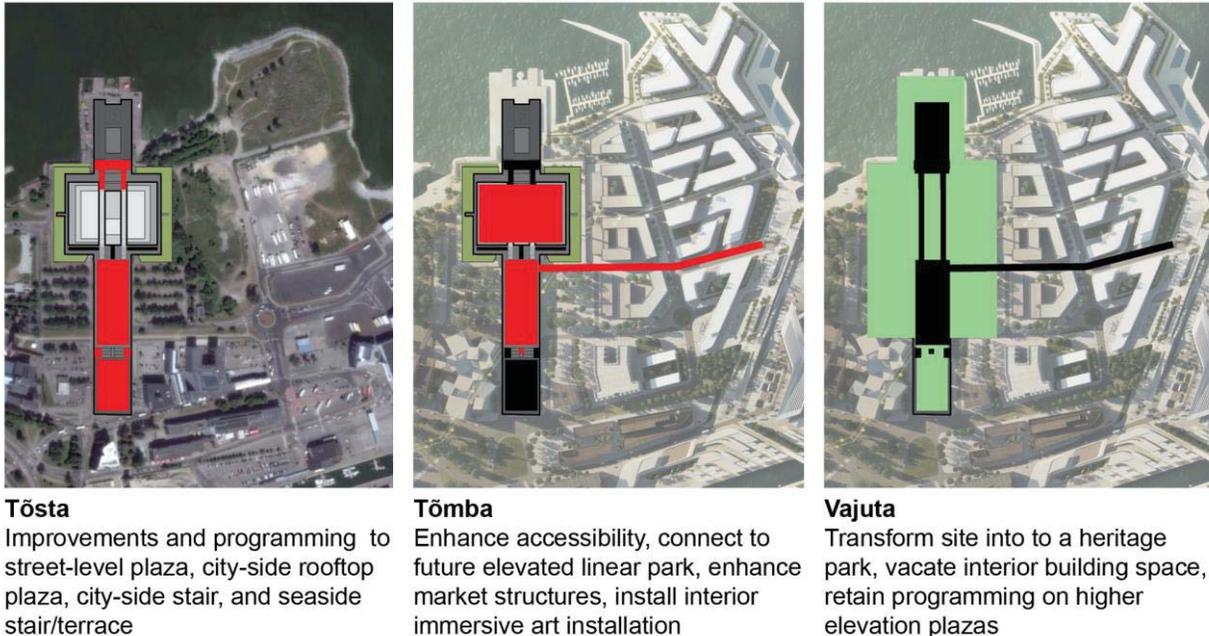


Figure 5. Re-imagining the future of Linnahall (2018). Source images: Google Earth (2018) and Plan View Rendering of Masterplan 2030 by Zaha Hadid Architects (2017). Renders by VA. Reproduced with permission of Zaha Hadid Architects. Diagrams by B. Belanger.

7 CONCLUSION

The future of *Linnahall* is uncertain. Through the years, proposals for redevelopment have followed one parallel track: repeating similar programmatic goals of interior renovation into a conference center and concert venue. To date, those proposals have not been realized; investors have not committed. This paper proposes an alternative program for *Linnahall*'s redevelopment, integrating by creative ideas for adaptive reuse, strategies for addressing anticipated sea level rise, alignment with *Masterplan 2030*, and cultural vibrancy.

Like the City's 2017 vision, we propose investing initially in the redevelopment of *Linnahall*'s exterior spaces. The first redevelopment phase *Tõsta* [Lift] would shift the focus from building renovation to urban place-making. This paper's novel contribution lies in the second and third design concept phases. In *Tõmba* [Pull], with the initiation of interior programming introducing a creative and experiential art installation, *Linnahall* will be restored to a culturally vibrant destination for local residents and visitors alike. In and *Vajuta* [Imprint/Submerge], as *Linnahall* is transformed into a seaside heritage landscape, it will continue to resist conforming to the redevelopment status quo.

The design concepts presented here would require funding from public sources, but at a level much less than the amount currently under discussion (to renovate the building into a conference center and music hall). The money saved after funding our proposed *Linnahall* improvements could be invested in a brand new conference center and music hall, located in the Old City Harbour redevelopment area, where it could more easily meet current expectations for building interior volume and light. Furthermore, placing a conference center and music hall in the port area aligns with *Masterplan 2030*'s vision to create a distinctive entertainment area for Tallinn residents. The pledged funding of \$125 million by Tallinn City the Republic of Estonia is over ten times the original cost of *Linnahall*'s. More effectively engaging Tallinn's creative community can generate economic drivers, likely at a much lower cost.

The research findings and design ideas presented in this paper provide new perspectives on the future of *Linnahall*, providing specific ideas for a particular site, but also generalizable concepts for similar sites. This paper provides information available in English for scholars studying post-Soviet landscapes, researching post-industrial waterfront redevelopment, and/or focusing on waterfront planning responding

to sea level rise. We hope this work will generate dialogue among Tallinn residents, planners and designers, decision-makers, and civic leaders affiliated with *Linnahall*.

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