Framing the Future of *Linnahall* in Tallinn, Estonia
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Abstract

Constructed for the 1980 Olympics, the Soviet-era Town Hall (*Linnahall*) with its iconic rooftop plaza in Tallinn, Estonia occupies a prominent position on the center city waterfront, but fails to serve as an effective public space for either Tallinn residents or tourists. Facing social, economic, environmental, and regulatory obstacles, public-private partnership plans for the site were stymied. Temporary uses as a concert and ice-skating hall have been abandoned. The question of *Linnahall’s* future was succinctly articulated by *Estonian World* in May 2016 by an article titled, “What would you do with a giant Soviet-era ‘mothership’ in Tallinn?” In this paper we identify dilemmas and opportunities for the future of *Linnahall*: a complex, contested, and crumbling waterfront public space.

Through first-hand site investigation, urban systems analysis, archival review of historical documents, case study analysis, and sea level rise modeling, we find both tremendous possibilities for *Linnahall’s* future and many obstacles. The site is burdened by a contested history and need for significant revitalization. Furthermore, sea level rise in the next century will leave about one third of the structure underwater during major storm surges, calling into question the validity of either historic preservation or renovation of this decaying Soviet monument. Key opportunities are the site’s tremendous views and infrastructural connectivity: to the Port of Tallinn, Old Town, and a planned seaside promenade as well as the “Cultural Kilometer” multi-user pathway. Framing the Future of *Linnahall* begins a legacy effort aimed at improving public space on the Tallinn waterfront.

Keywords: urban design, post-Soviet development, waterfront redevelopment, ethnic integration, civic space, post-socialist redevelopment

*Figure 1: Linnahall’s* location within Tallinn and the surrounding Baltic-Scandinavian region.
Introduction

The Soviet-built Town Hall (*Linnahall*) in Tallinn, Estonia occupies a prominent position on the center city waterfront (see *Figure 1*) but fails to serve as a gateway to the shoreline of the Tallinn Bay and the Gulf of Finland -- either for city residents or the 1.4 million tourists per year.

*Linnahall* is an iconic yet contested Soviet building and public space, and the challenge of navigating the site’s future lies in reconciling its conflicting facets. The site is both a cultural icon and a crumbling relic of occupation. The building itself exhibits indications of structural instability, and its accessibility to the public as a concert hall and ice skating rink has been curtailed in recent years by problems with the roof. Although *Linnahall* is under discussion for redevelopment as a conference center or as a 5,300-seat orchestra hall, the ceiling would need to be rebuilt for the interior to function acoustically (Cavegn 2016). The interior of the building was gated off to regular public use in 2009 and since then has stood largely vacant with an uncertain future.

*Linnahall* was built for the 1980 Olympics, and as such remains a visual reminder of Soviet occupation and of the continuing need to promote ethnic integration of the Russian-speaking minority, which form more than a third of the population of Tallinn. Reimagining the site provides tremendous opportunity to for ethnic integration in public space. The site is already used by youth of different ethnic groups and anti-fascist (antifa) graffiti speaks to integrationist intentionality within the graffiti subculture.

*Linnahall* is typical of Soviet planning projects imposed on Tallinn’s landscape: failing to consider local factors and imposing in scale (see *Figure 2*), *Linnahall* has the reputation of being one of few buildings large enough to be seen from space (*Estonian World*, 2016). First known as the “Lenin Palace of Culture and Sport” and renamed in 1991 after the restoration of independence, *Linnahall* won several design awards in the early 1980s and was, accordingly, protected as a ‘cultural heritage monument’ (#8781). According to the Republic of Estonia, such monuments are to be “preserved in their traditional environment in order for the people to enjoy our cultural heritage in all its richness and uniqueness today and in the future.” Of Estonia’s protected monuments, however, 25% are in disrepair; revisions to the regulations concerning cultural heritage monuments are planned for 2018-2021 (Republic of Estonia, 2016 & 2017).

Complicating schemes for renovation, the interior of the building is already below sea level. The Baltic Sea in this area is nearly tideless. However, a normal maximum storm surge in Tallinn is 200-220 cm, with a maximum of 310 cm in current climate conditions (Suursaar et al 2011). Much of storm surge is due to wind. Climate change will induce higher storm surges, affecting the stability of banks up to 4.5 m above sea level by the year 2100, by which time sea level is expected to rise 74 cm in Tallinn (Kont 2008). These conditions (see *Figure 3*) present constraints for the building’s use in the future, as well as opportunities to reestablish regional ecosystems and stabilize shoreline erosion. Furthermore, *Linnahall* forms a jetty, and as such interrupts sediment transport, leading to severe shoreline erosion just east of the building. From the landward side, *Linnahall* blocks sweeping views of the sea at street level.
Figure 2: Linnahall’s failure to consider local factors and imposing scale. Photo by A. Haas, 9 Sept 2014

Figure 3: Sea level rise and higher storm surges over the next 100 years will constrain Linnahall’s future. Plan shows section location and those areas vulnerable to flooding (blue) from present day maximum storm surge (+3.10 m). Sections show storm surge effects. Sections by West Virginia University students, C. Channel, R. Dapper and J. Snouffer; section locator by I. Molgaard, Z. Grossl & A. Taiwo Ajibwe.
Much of the urban plaza that serves as the site’s threshold and interface with downtown Tallinn has fallen into disrepair (see Figure 4). The plaza is Linnahall’s threshold and main entrance, but offers very little to draw new users in. When tourists arrive at the adjacent passenger port, their entry experience highlights the conflicts between Tallinn’s ‘medieval pearl’ Old Town (Vanalinn), industrial rail lines, abandoned and active industrial areas, and demilitarized zones. Linnahall’s threshold plaza functions as a pedestrian bridge over industrial rail lines beneath. The rooftop terraces and stairs of Linnahall are used for informal gathering on New Years Eve, occasionally for summer concerts, and for small informal social gatherings by the seaside; but otherwise remain vastly underutilized.

Economically, Linnahall is also underperforming. It houses a heliport, small ferry port and Nord Café (which doubles as a liquor store), but its location has the potential to become a new thriving hub of urban investment and capital. The Port of Tallinn’s comprehensive long-term vision for the surrounding area, however, leaves Linnahall completely untouched.

Our goal is to help the City of Tallinn conceptualize redevelopment alternatives for the Linnahall site, which has lain fallow since nearby Soviet military outposts were razed in the 1990s. We identify a variety of cultural, experiential, and ecological redevelopment objectives that respond to Linnahall’s layered and complex narratives.

Figure 4. The imposing scale of Linnahall’s threshold urban plaza is not softened by its disrepair.
Priorities include: addressing the history of Soviet occupation and the need for ethnic integration, reactivating the Linnahall building itself, accommodating sea level rise, and enhancing accessibility of public spaces for a range of civic programs. In this paper we present six conceptual design strategies to help address the complicated and sometimes uncomfortable histories layered in Linnahall’s civic space: Renovate, Raze, Interim Adapt, Stratify, Encapsulate, and Naturalize. Spanning a wide spectrum of redevelopment alternatives, these frameworks provide transferable concepts for other cities pursuing multiculturalism and cultural reconciliation.

Our project is timely because in May 2016 the City of Tallinn initiated planning efforts for redevelopment of the area and re-use of the building; City Planners state they would be very open to considering proposed designs, or the framework for a design competition (personal communication, May 2016). Redeveloping Linnahall has the potential to leave a longstanding legacy for Estonians and visitors, serving as an example to planners of other post-socialist cities.

Background

Our literature review revealed that peer-reviewed work on Tallinn’s waterfront, and Linnahall in particular, is sparse. Broader sources that address Tallinn’s transition from socialist to post-socialist governance identify a number of issues that have complicated large-scale urban design in Estonia. Tuvikene (2016) outlined three ways of thinking about post-socialism: “as a container, as a condition and as a de-territorialized concept.” Transfer of authority from national to local government, negative associations of ‘planning’ with Soviet-era production quotas, and importation of Western specialists without local expertise are among the chief obstacles (Starodubtseva, 2012). Sykora (2009, 391) calls attention to the risks of post-socialist industry: “De-industrialization left behind extensive brownfields posing both potential for redevelopment as well as threat of further-spreading decay.”

Martinez (2016) finds that urban decay and the materials choice for new architecture reveal “transmission and reception, what survives and what is forgotten, turning the [Tallinn] cityscape into a sort of stage” and that these amalgamations reveal “social inequalities, radical ruptures and systemic failures.”

Two key sources (Feldman et al 2000, Unt et al 2014) specifically address the Tallinn waterfront. Feldman et al outline the challenges of post-socialist waterfront development in Tallinn, and note that “Central and Eastern Europe represents a serious gap” in research on urban revitalization; Western models for understanding redevelopment “do not incorporate evidence from Eastern Europe” (829). Tallinn relied heavily on public-private partnerships for development after the restoration of independence, but during the post-Soviet transition, officials needed to develop experience to implement such public-private partnerships. Furthermore, adjusting from Soviet central planning to market-driven urban design required a paradigm shift in development practices (Feldman 2000). The re-privatization of property also led to complications, as land ownership by centralized government at times hampered local redevelopment efforts. In the past decade, however, several municipally owned parcels near Tallinn’s center city waterfront have been allocated for redevelopment with various private partners.
Where Feldman et al discuss the economic and governance backdrop to redevelopment in Tallinn, Unt et al delve into the tensions and virtues of “blank space,” those urban spaces that have been culturally voided and later informally appropriated. Such appropriations may be unsanctioned or improvisational, yet provide a sense of ownership to the people who occupy them. The authors focus on the Tallinn fishing harbor Kalasadam, located immediately west of Linnahall, which is similarly layered with the complexity of historic, Soviet, and post-Soviet narratives. Using Kalasadam as a case study, the authors present a conceptual framework of sublimity, temporality, and wilderness of the site’s dereliction. Such blank spaces promote “sharper emotions, suggest freedom, and attract creative approaches,” yet the authors caution that “an entirely unregulated environment would encourage improper social behaviour and be disturbing to the senses” (Unt et al 2014, 284). The authors argue for balance between structured and derelict public space, to address needs for both redevelopment and creative urban appropriation.

Methods

Our methods include descriptive, modeling, interpretive, evaluative, and projective design strategies. Descriptive methods include on-site observation and precedent analysis. Modeling focused on evaluating the potential impacts of published sea-level rise forecasts to Linnahall. Interpretive methods include interviews with Tallinn planners and archival research. Evaluative methods involved identifying the most salient issues and identifying cultural, experiential, and ecological redevelopment objectives. Lastly, we used projective design to develop six distinct concepts for redevelopment, intended to contribute to the dialogue framing Linnahall’s future.

While the literature provided meaningful background information into the economics, governance, and occupation of Tallinn’s waterfront, specific data on redevelopment planning for Linnahall does not exist in peer-reviewed documentation. Our primary sources for waterfront planning initiatives and recent developments included: first-hand interviews with Tallinn city officials, review of municipal planning, transportation, and Port Authority statements, and review of online news periodicals covering redevelopment prospects and design competitions.

Our methods also included university student research of relevant waterfront development precedents and sea-level rise modeling. This work is a collaboration between professors at two universities and included both undergraduate and graduate research outcomes from both campuses. In our first phase, Kansas State University students conducted urban design precedent research while West Virginia University students developed sea level rise models. Through an in-class assignment, Kansas State University students conducted precedent analysis of transferable waterfront developments in cold-weather climates. The precedent studies included sites in Europe and North America, and ranged in scale from individual sites to district-wide master plans. We summarized the student findings for the strategies most relevant to Linnahall, and their work helped inform our redevelopment concepts. West Virginia University students conducted sea level rise modeling to determine likely impacts to the building and site. Findings show that portions of the building will be submerged by the year 2100. Sea level rise forecasts were derived from a study specific to Estonia’s waterfront (Kont et al 2008).
Face-to-face visits were supported by a 2016 Big XII Fellowship, when we also reviewed Estonian and English news sources to discuss and summarize relevant developments surrounding the Linnahall area. Some work had been previously supported by a 2008-2009 Fulbright grant. Repeated site visits in 2005-2006 and 2008-2009 by Haas and by Haas and Belanger in 2016 after an Erasmus+ Faculty Mobility to Tartu, Estonia provided both authors familiarity with the existing site conditions. Interviews (in Estonian) by Haas with city officials provided information about Linnahall’s opportunities and constraints. Haas also reviewed archival images and maps to obtain an understanding of historic conditions and changes in the Tallinn coastline since the 1680s.

Contextual Analysis

Tallinn’s center city waterfront as a whole has been uncertain territory since the re-establishment of independence in 1991, after which Soviet military structures were removed from the waterfront, leaving large parcels of vacant municipal property. Unt et al (2014: 273) contextualize the adjacent Kalasadam fishing harbor within international landscape theory redefining vacant land – even finding sublime in the derelict:

“the rich concentration of meaning that these ambivalent landscapes contain help us to understand nature–human relationships and to set examples for urban landscape design and planning. Derelict places should not be seen as devoid of content to be developed after the original structures have been removed. Instead, the existing structures and stories should be used to advantage as a base for new development”

Tallinn’s center city waterfront around Linnahall is a nexus of stark contrasts. Near Linnahall, planned luxury seaside residential redevelopments at Nobless and Kalasadam offer yacht parking, but bracket Patarei, an abandoned prison that attracts ‘dark tourism’ – edgy international interest in uncomfortable local historical narratives: in this case, occupation and oppression. We began our site analysis of Linnahall with an assessment of the surrounding center city waterfront, including nearby landmarks and areas planned for redevelopment pulling from mostly Estonian newspaper updates on planning process – summarized here because “to the public, the [waterfront] redevelopment plans are not clear” (Unt et al 2014: 270). For the location of the following landmarks, see Figure 5.

Paljasaare: Bare Island
The subject of the most recent Tallinn design competition, Paljasaare is the portion of Tallinn most recently emerged from the sea, as a result of post-glacial uplift. Known for marshes and wildlife diversity, the post-military and post-industrial area is planned as an ecological reserve and is located just over 2 km west of Linnahall.

Kultuurikilomeeter: Cultural Kilometer
Described to potential tourists as “a footpath that runs through an intriguing stretch of post-Soviet, post-industrial Tallinn” (Rough Guides: 2011), the Cultural Kilometer was a temporary 2.5-km pedestrian walkway designated for a bike race and other special events
Figure 5. Linnahall’s context within nearby landmarks and areas planned for redevelopment.


** Per Port of Tallinn (2013) and Unt et al (2014)
celebrating Tallinn’s honor as the 2011 cultural capital of Europe (Loonet, 2011). The route began near the southwest corner of Linnahall, and followed a former railway embankment. The Cultural Kilometer featured no new pavement; instead, temporary black and white bollards and signage guided visitors from the former power plant adjacent to Linnahall to the Noblessner Quarter. Development along Tallinn’s waterfront has since disrupted the continuity of the 2011 route, but in future portions of it may still be relevant as potential pedestrian connections.

**Noblessneri Kvartel: Noblessner Quarter**

Emanuel Nobel and a torpedo manufacturer Gustav Lessner first established Noblessner as a submarine factory in 1912, during Tsarist occupation. Plans call for the factory building to be renovated and adapted during the redevelopment (similar to the very successful Rotermann Quarter discussed below). Although the 250-million euro project is still under construction, more than half of its planned 208 luxury apartments have already been sold. When completed in late 2018, Noblessner will include exhibition space as well as an auditorium (The Baltic Course, 2017). Noblessner’s port has already been converted from post-industrial uncertainty to a concert venue and yacht marina.

**Patarei: The Battery**

Nicholas I intended the 1840 Patarei to serve as maritime fortress, but used it instead as military barracks. During Estonia’s interwar independence (1918-1940), Patarei was used as a prison first in 1920; which use continued through Soviet occupation (1940-1991) and even during the first years after the restoration of independence. The facility was abandoned in 2004, and is now badly in need of a new roof, which is estimated to cost 1.4 million euro. Preliminary concepts call for Patarei’s conversion into a museum, Telliskivi “cultural city,” hotel, offices and/or apartments (Patarei 2015). The site now serves as an informal occupation museum, with some guided tours available.

**Kalasadam: The Fishing Port / Kalarand: The Fishing Beach**

Just west of Linnahall is Kalasadam, the historic fishing harbor. Since the demilitarization of the waterfront with the restoration of Estonia’s independence (1991), Kalasadam has been used as a public beach and for fishing, although officially it is owned privately. The 2008 Plan for redeveloping the fishing port “propose removing everything from the existing space and replacing it with multi-storey residential buildings,” (Unt et al 2015: 269). The local neighborhood association, Telliskivi Selts protested. One neighborhood resident and urbanist, Teele Pehk, organized increased public use of the beach and while lamenting its planned conversion to yacht parking in an interview with The Baltic Times (Garlick 2015). The owner-developer Pro Kapital Limited responded with a 2015 lawsuit intended to actually discourage public participation, suing Teele Pehk for defamation of the project. The city solicited public input during the summer of 2015. After several bitter media exchanges, the owner-developer Pro Kapital consented to partner with the City Planning Office and the Estonian architectural federation to sponsor a design contest for the Kalaranna 1 property. Eleven submittals were received (Museum of Estonian Architecture, 2017) and in February of 2017 the winner was announced as Kadarik Tüür Arhitektid OÜ (Luts 2017). However, the final design looks similar to the original design proposal, with the fishing port converted entirely to yacht parking -- although design revisions left open to public access the existing beach just outside the harbor.
**Kalaturg: Fish market**
On Saturdays, a fish market operates next door to *Linnahall* and the fishing port, specializing in locally caught seafood. In 2012, the City initiated market improvements, which led to increased local interest (Teeder & Urmas 2012). After 2013, the fish market began hosting an annual fish festival, which further increased site use (Sulbi 2013).

**Kultuurikattel: The Culture Boiler**
The former Tallinn City Central Power Station operated from 1913-1979; its iconic smokestack was featured in Andrey Tarkovsky’s 1979 existential urban film *Stalker*, which also featured scenes from the Rotermanni Quarter. The former power station’s main boiler room, which dates to 1934, has been adapted into an arts center, creating a creative synergy with the nearby local arts and crafts shop, Estonian Design House (at Kalasadama 8). The power station was also the origin point of the 2011 Cultural Kilometer installation. Kultuurikattel features a public garden, café; hosts conferences and concerts, and studio space (Kultuurikatel, 2017).

**Rotermanni Kvartel: Rotermann Quarter**
Founded in 1829 by Christian Abraham Rotermann, the Rotermann Quarter housed diverse business interests during its industrial history: a starch factory, a sawmill, a distillery, a pasta factory, wool factory, salt storage, and even a department store. In 1996, the salt storage facility was converted to the Estonian Architectural Museum, and future development was restricted to the height of the complex’s historic grain elevator. In the early 2000s, architecturally innovative apartments enclosed a new Rotermann square, which included a cinema as well as a shopping center in the former flour mill.

**Positioning Tallinn’s Waterfront**
While many of these surrounding waterfront developments contextualize Linnahall, because of the project’s prominent location and requirement for historic preservation, we also looked internationally for inspiration to guide our design process.

**Northern City Waterfronts**
At the very beginning of our site analysis, we qualitatively compared Tallinn’s center city waterfront to the waterfronts of other northern cities with comparable climates, specifically: St. Petersburg, Helsinki, Stockholm, Gothenburg, Copenhagen, Oslo, and Riga. In examining aerial photos at the same scale, we found that these comparable regional cities differ from Tallinn in the degree to which blue space permeates built space. The other cities feature extensive canals, or they are built on an archipelago of islands; whereas Tallinn’s waterfront presents a more distinct edge. Thus, Tallinn’s waterfront is less integrated with urban uses and less accessible for recreation as compared to other northern cities.

**Waterfront Redevelopment Precedents**
Examples of waterfront redevelopment abound in Northern Europe. Malmö, Sweden’s Western Harbour has become an exemplar of sustainable mixed-use waterfront redevelopment. In addition to attaining a 100% renewable energy system, the district accomplished ambitious goals...
in urban ecology, waste management, and architecture. Unexpectedly high demand, however, stifled affordable housing goals, resulting in housing prices doubling within a 6-year period (Austin 2013). West Harbour’s high performance landscape strategies and ecological biodiversity goals were particularly influential to our redevelopment concepts.

Stockholm’s Royal Seaport master plan also focuses on energy efficiency and ambitious sustainability goals. The plan has been approved and construction is currently in progress. Hossein Shahrokni et al (2015) claim the master plan is the first-ever urban development to integrate high-speed (near real-time), fine grain (individual dwelling unit) monitoring systems for sustainability metrics, so-called Smart Urban Metabolism (SUM). The Royal Seaport serves as an exemplar for sustainability practices, demonstrates that low-emission and low energy urban systems are valued in Northern European cities, and suggests Linnahall could integrate cutting edge technology for on-site energy systems.

In Copenhagen, the City has encouraged creative businesses to occupy warehouses and create a “scrappy and appealing” cultural destination on Paper Island pending further redevelopment (O’Sullivan, 2016). Unsurprisingly, the redevelopment program must contend with tensions between maximizing profit and celebrating the island’s history, and critics argue the plan offers inadequate affordable housing (O’Sullivan, 2016). The notion of creating temporary cultural destinations is particularly significant to our concepts for Linnahall, especially in association with Kultuurikattel, the Culture Boiler.

Creating iconic cultural destinations on formerly derelict sites is also a theme of European waterfront planning. Oslo’s heralded opera house has provided city branding while also catalyzing urban regeneration in a formerly industrial district (Prilenska 2012, Smith et al 2011). Similarly, Copenhagen’s Opera House has had a significant influence on urban investment in the surrounding districts, including Paper Island. In both cases, projects also involved significant improvements to urban public space. Renovating Linnahall into a major destination could provide Tallinn with a revitalized cultural landmark, and add momentum to ongoing redevelopment plans for Old City Harbor.

Other recent European urban projects embrace important and contested historical narratives. The European Solidarity Center in Gdansk, Poland celebrates the anti-communist movement and endeavors to “share the achievements of the peaceful struggle for freedom, justice, democracy and human rights with those who are deprived of them” (Europejskie Centrum Solidarności 2017). The award-winning museum serves as a cultural touchstone and symbol of the Polish solidarity movement. In Dresden, the Bundeswehr Military History Museum recognizes the costs and impacts of war. Since 1897, the building has undergone regular reprogramming to celebrate various aspects of military history, depending on the priorities of the ruling government. In 2011, the building received an iconic renovation and shifted focus to human dimensions and far-reaching consequences of military conflict (Lawrence 2014). Both the European Solidarity Center and the Bundeswehr Military History Museum exhibit the multi-dimensional narratives of war and occupation, and serve as precedents for a potential post-occupation cultural center at Linnahall.
Peter Walker Associates’ redesign for Sydney’s former industrial harbor provides an ecologically-sensitive precedent for waterfront public space. The Barangaroo Reserve uses a steep flight of stairs like Linnahall’s to activate the waterfront, which is reinforced with a mosaic of large stone blocks. Alongside the stairway and terracing stones, native plantings provide shade and recall pre-development conditions (PWP Landscape Architecture 2017). The integration of hardscape for public access hardscape and a softscape emphasizing native plants suggest a new hybrid experience at Linnahall.

**Massive Green Roof Precedent**

We also found an example of a conference center with a public green roof in Salt Lake City, Utah. The Latter Day Saints (LDS) Conference Center seats 21,000 and uses radial trusses to support a 1.5-hectare intensive green roof, providing habitat for bobwhite quail with native plantings and pockets of evergreen trees. If Linnahall’s roof and ceiling must be renovated completely, the LDS Conference Center’s truss system could provide a key architectural design precedent because of the additional bearing capacity it provides for green roof adaptation. Furthermore, the conference center attracts tourists to its greenroof with guided tours.

**Graffiti Tourism Precedents**

We also examined international design precedents invoking graffiti as a means to promote tourism, inspired by extensive graffiti on Linnahall’s seaward walls and the surrounding developing arts district: including the Rottermann’s Estonian Architectural Museum and the Kultuurikatel / Culture Boiler. Graffiti competitions attract worldwide notice and significant prizes: the Tahitian ONO’U Battle offered a $10,000 cash prize in 2014, attracting 24 juried contestants (ONO’U 2015). The Ruhr Games in Hagen, Germany offered graffiti workshops in June 2017; in Bristol, UK the *See No Evil Festival* in 2011 hosted graffiti competitions to champion Bristol as a destination for urban art during the Olympics (Brooklyn Street Art, 2012).

Well-known graffiti artists creating ethnically sensitive work could be invited to Linnahall. For example, JR’s *28 Millimetres: Face 2 Face* (2007) along the Separation Wall in Bethlehem promotes integration by pairing similar portraits from conflicting groups along the Separation Wall in Bethlehem, which separates Palestinians from Israel and the West Bank and was condemned as a violation of international law by the International Court of Justice. JR explains, “The media often distorts what is actually going on in remote locations of the world. I go to learn firsthand and help communities regain control of their reputations” (Mun-Delsalle 2015).

The extensive graffiti now at Linnahall indicates it meets a need and serves as a place for self-expression. According to Tallinner Mari Lannemets, “Graffiti brings forth suppressed problems, forbidden issues and allows to present alternative truths, which have no place in the official discourse” (Laanemets and Kurg 2002: 71). Linnahall site users include international photographers looking at the building’s crumbling condition and graffiti, stark contrasts to the medieval spires of Old Town in the near distance. Linnahall’s horizontal architecture is well suited for graffiti display. High quality murals could serve as a point of interest for tourists arriving at the nearby passenger ferry terminal (see Figure 2). Furthermore, murals by well-known artists could be a source increased tourism and thus revenue; Tallinn needs to broaden its base of interest for tourism to stay competitive with newly popular destinations like Iceland.
Design opportunities and constraints

*Linnahall* is protected as an historic cultural monument, and serves as a point of intersection for Old Town and the history of Soviet occupation as well as planned high-end redevelopments of the Old City Harbor. The *Linnahall* site has potential as a gateway to the city of Tallinn for tourists arriving at the nearby passenger ferry terminal. A former axis from the tsarist Kadriorg Palace (built for Peter the Great) connects *Linnahall*’s threshold plaza to that point of pride for the Russian-speaking minority, but this axial view is left unexplored in current redevelopment plans (see *Figure 5*).

In light of dense mixed-use residential development planned for *Kalasadam* and the Old City Harbor immediately surrounding *Linnahall*, we recommend that initial programming and planning strategies activate *Linnahall* itself and generate more visibility for the historic cultural monument. Specifically, we recommend that redevelopment concepts for *Linnahall* address the following objectives:

**Cultural**
- Address contested social and historic narratives of occupation and ethnic integration.
- Re-integrate *Linnahall* with the developing arts and cultural district surrounding it.
- 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.

**Experiential**
- 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 *Linnahall*’s function as a gateway for tourists arriving by sea.
- Make *Linnahall*’s threshold plaza more inviting and more accessible.

**Ecological**
- Provide site design strategies that address sea level rise.
- Soften *Linnahall*’s Brutalist aesthetic through landscape interventions, to integrate it with Tallinn’s present (and future) character.
- 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.

**Concepts for Redevelopment**

Each of the following six concepts addresses these cultural, experiential, and ecological redevelopment objectives to various degrees. *Renovate* explores the potential for adaptive
building reuse while recognizing economic obstacles. *Raze* – a simplistic strategy nevertheless worth discussion -- would remove the building more or less entirely, and could be objectionable because it fails to consider *Linnahall*’s important cultural significance. Shifting toward more creative strategies, *Interim Adapt* and *Stratify* propose adaptive reuse and hybrid concepts that attempt to integrate *Linnahall*’s complexity with consideration of cultural sensitivities. Finally, seeking to integrate a re-established waterfront ecosystem with *Linnahall*’s iconic architecture, *Naturalize* proposes a more softscape-focused strategy.

1. **Renovate.**

Renovating *Linnahall* into a destination orchestra hall is conceptually consistent with Oslo’s and Copenhagen’s success with new waterfront opera houses, and could provide a catalytic cultural amenity for the Old Harbor waterfront. However, unlike the brand new iconic buildings in Oslo and Copenhagen, a *Linnahall* renovation must overcome limitations of the structure’s Brutalist design. *Renovate* has been under discussion since the re-establishment of Estonia’s independence, but would require a formidable commitment from a private developer to form a public-private partnership. Current plans call for re-use of the building as conference center and/or orchestra hall, but we have concerns that the largely windowless structure is functionally obsolete, and of questionable relevancy in Estonia’s political climate -- and with its structural issues, an undesirable investment from a contemporary redevelopment standpoint. The nearby *Patarei* would need a similar level of investment and restoration but offers more long-range historic interest and could house a broader suite of potential uses, thus competitively attracting investors. Furthermore, although *Linnahall* has been under discussion for total renovation and modernization for many years, during that time the City has been unable to find a private investor willing to provide funding. While Tallinn has been successful ‘popping the top’ of older architecture to add contemporary interest and adapt use, we were unable to locate design precedents with a similarly massive footprint. *Linnahall*’s location makes it vulnerable to sea level rise, and *Renovate* could fail to accommodate changing site conditions in the future as the interior space is already below sea level. Finally, we question the integrity of the Soviet-era building materials given the weathering of exterior elements, with crumbling concrete, exposed rebar, etc.

2. **Raze.**

A seemingly simple solution, *Raze* erases the building to start anew with a *tabula rasa* or clean slate. *Linnahall*, although it has significant structural and site issues, is functioning in its own way – antifascist (antifa) graffiti demonstrates its appropriation as a subcultural meeting point, and as a potential center for ethnically mixed populations. We feel it would be a mistake to *Raze* entirely, as *Linnahall* has the potential to add to the diversity of interest along Tallinn’s waterfront and may serve as a point of pride for the Russian-speaking ethnic minority. A less extreme alternative would be removing parts of the building and filling the portions most vulnerable to sea level rise, while maintaining some of the recognizable architectural elements (stairs, walls) as waterfront relics. The 14th-century *Pirita* convent in north-eastern Tallinn functions as a concert hall space with only some walls and no roof remaining. Alternatively, the portions of *Linnahall* remaining could be integrated into a new building or significant addition to embrace the historic structure and provide new programmable space. The reworked building could thus serve as a touchstone for ethnic integration, taking cues from the European Solidarity Center in Gdansk Poland, and/or the Bundeswehr Military History Museum in Dresden, Germany.
3. **Interim Adapt.**

We feel it is important to enhance *Linnahall’s* non-programmed opportunities for occupation. Similar to Copenhagen’s strategy for Paper Island, *Interim Adapt* proposes creating temporary cultural destinations until a full plan can be initiated. *Linnahall* was designed for large crowds, but is today being used more often by small groups. Accordingly, one design priority will be creating small spaces nested within the larger gathering space. *Interim Adapt* leaves the historic structure itself intact, but adapts the use of it, by: converting flat paved roof areas to more inviting green roof turf panels, adding a waterfront bar to enhance the prevalent use of seaside social gatherings, and introducing canvas canopies to provide shade and areas of shelter for food vendors and other special events. In *Interim Adapt*, we would let water reclaim the seaside portion of *Linnahall*, and accept the possible outcome that, eventually, *Linnahall* could physically crumble past the point of conservation; thus we open dialogue for the site’s future as a multi-ethnic and cultural point of interest without provoking inter-ethnic controversy.

4. **Stratify.**

In this hybrid scenario, we would divide *Linnahall* into three zones and treat each with one of three strategies: preserve, adapt, and cover. We would fill the landward side of the building, and add a water feature to invite tourists and Tallinn residents into the site. The highest elevations of the structure would be reprogrammed for increased use, and the seaward side preserved and protected from rising sea levels. This approach works with the strengths of the building, capitalizes on the aspects of the site that are functioning well, and ameliorates especially the entry experience. This multi-pronged approach allows *Linnahall* to enhance public space in sync with redevelopment planned around it, and respond to increased demand for park space as one of the premier remaining public waterfront spaces – while minimizing cultural controversy.

5. **Encapsulate.**

In this redevelopment concept, we would fill or otherwise bolster the interior space, and preserve the exterior geometry from further degradation by encapsulating it. We would mound up *Linnahall’s* threshold plaza and parking lot area into a civic amphitheater, drawing inspiration from the bastion earthen embankments of Scandinavian fortresses to bolster the building’s walls. The richness and complexity of *Linnahall’s* narrative doesn’t stop at 1980, but goes back much further -- accordingly, we would layer in narratives of the post-Soviet industrial derelict sublime as well as work in references to earlier history. We would focus particularly on the era of Swedish occupation (1558-1710), known as the era of “Good Old Swedish Times” because the Swedish occupation was benign in comparison to the regimes (tsarist Russian, Soviet), which later eclipsed it. Precedents for this strategy have been successful elsewhere in Tallinn. The foundations of buildings bombed in World War II were covered and protected along Harju Street to enable the space to be adapted as a park, and in Tammsaare Park, a bombed foundation uncovered during redevelopment is being integrated into the basement of a new café.

6. **Naturalize.**

In this scenario, we would work with the existing structure of *Linnahall* but layer in ecological functions, integrating the architecture with ribbons of constructed dunes to protect Tallinn’s shore from rising sea levels and create a lagoon for retention in the event of a major storm surge breach. *Naturalize* parallels PWP’s integration of landscape and hardscape at the Barangaroo.
Reserve, and hybridizes ecological emergence with enhanced public access. The structure itself would be allowed to decay without intervention. Naturalize perhaps best captures Unt et al’s call for balance between structure and deterioration, allowing for a variety of sanctioned and appropriated uses.

**Future Research**

We plan to further refine and explore strategies for increasing Tallinn’s urban resilience along the central waterfront and Linnahall. We would like to expand our diagrams communicating our six design concepts, to facilitate dialogue with City officials and contribute to public participation.

**Conclusion**

*Linnahall* is a complex site with many contested narratives and an uncertain future. An iconic relic symbolizing Soviet occupation, *Linnahall* is also: an emblem of Tallinn’s role as host to the 1980 Olympic Regatta, a habitat for present-day subcultural social gatherings, an award-winning landmark on the Estonian heritage register, a graffiti mosaic and failed gateway to the waterfront, and a spectacular viewing platform. Unable thus far to find funding for *Linnahall’s* renovation, the City has by default consented to *Linnahall’s* slow crumbling decay and takeover by a wilder urban ecology. Meanwhile, Old Harbor’s redevelopment plans demonstrate ambition for urban regeneration along Tallinn’s waterfront. With the expansion of market-driven development, for better or for worse, the questions underlying *Linnahall’s* future become more inescapable.

We believe *Linnahall*’s prime waterfront location, at the epicenter of ongoing urban regeneration, is an opportunity to provide experiences ranging from the sublime to the picturesque. We suggest future plans for *Linnahall* recognize the reality of sea level rise, acknowledge resurgent ecosystem function, and incorporate low-energy urban systems. Plans should address the historical narrative of occupation, migration, and the restoration of independence, in context of present-day needs of both residents and tourists. Our six concepts for redevelopment – *Renovate, Raze, Interim Adapt, Stratify, Encapsulate, and Naturalize* – provide a framework for *Linnahall’s* future. Spanning from technical strategies to ecological emergence, the six concepts all provide opportunities for *Linnahall* to become a re-valued civic monument, to encourage positive inter-ethnic and cultural dialogue, and to usher in a new era of urbanism for Tallinn.

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