

Monday 22nd March 2021

FINLANDIA HALL

**A critical essay about a piece of architecture post 1945.
2500 words [40%]**



01 INTRODUCTION

What is Finlandia Hall?

03 SITE ANALYSIS

Exterior & Materiality

02 SPACE AND INTERIOR

Finlandia Hall & the Congress wing

04 RENOVATION

Redevelopment of Töölönlahti

05 CONCLUSION

The future of Finlandia hall

01 INTRODUCTION

What is Finlandia Hall?



'Alvar Aalto's Finlandia Hall facing towards Töölönlahti Bay,'¹

Alvar Aalto was an architect of few words but was seen at most confident in expressing his words on what is known to be the architecture and urbanism of the twentieth century. During his time, Aalto not only designs building but also designed furniture and glassware, and he was able to show such skill into one building. In 1962, the Helsinki city authorities commissioned Aalto to design Finlandia Hall as a concert hall, as well as a formal meeting venue.² By the time they finished Finlandia Hall, the Congress centre wing was added in 1973. His architectural pattern was often seen grounded in functionalist principles that have been shifted away from the restrictions of rationalism classicism. In preparation of planning, Aalto pictured a large, fan-shaped square terraced on three levels the topmost point of which would be where the equestrian statue at Mannerheim stands, who was given recognition of his unparalleled role in establishing and later preserving Finland's independence from the Soviet Union.³

This essay will explore Alvar Aalto's journey through a building, Finlandia Hall, inside out.

¹ Mindel, L.F. (February 2016). *The Architect's Eye: Explore Alvar Aalto's Brilliant Finlandia Hall*.

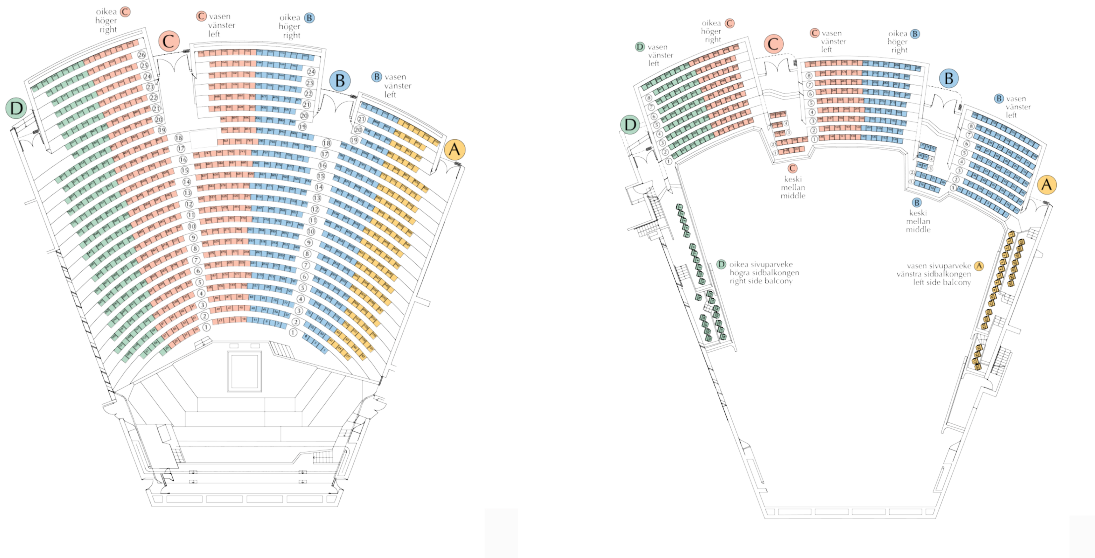
² Christie, S. (n.d). *Finlandia Hall by Alvar Aalto: Celebrating Light and Nature*.

³ Tilburg, K.V. (n.d). *Equestrian Statues: Carl Gustaf Emil Mannerheim*.

02 SPACE AND INTERIOR

Finlandia hall

Alvar Aalto is known to have said “that the most beautiful and central location in Helsinki needs a building that is worth it.”⁴ From this, Aalto had envisioned to create something fantastic, fanciable and functional, leading to creating one of the most iconic buildings from the ground up for visitors, While providing them a lifetime experience in a wide range of events. Its unique centre designed for domestic and international conferences, concerts and other events.



‘Finlandia Hall Main Auditorium and balcony map.’⁵

The Finlandia Hall’s main auditorium [70m²] is where Alvar Aalto’s vision was released to the fullest, where the hall is an experience in itself. It is located in the main building with a mainstage of 187m² and a choir space of 50m², holding the capacity of 1700 seats with designated wheelchair places. The stage can be extended into the auditorium across its entire width, from 1 meter up to 2 metres up to 2 metres in places. This space was often used for meetings/seminars and concerts.⁶

⁴ Finlandia Hall (November 2015). *The Story of Finlandia hall – Finlandia-talon tarina.*

⁵ Finlandia Hall (October 2020). *Finlandia Hall Main Auditorium and balcony map.*

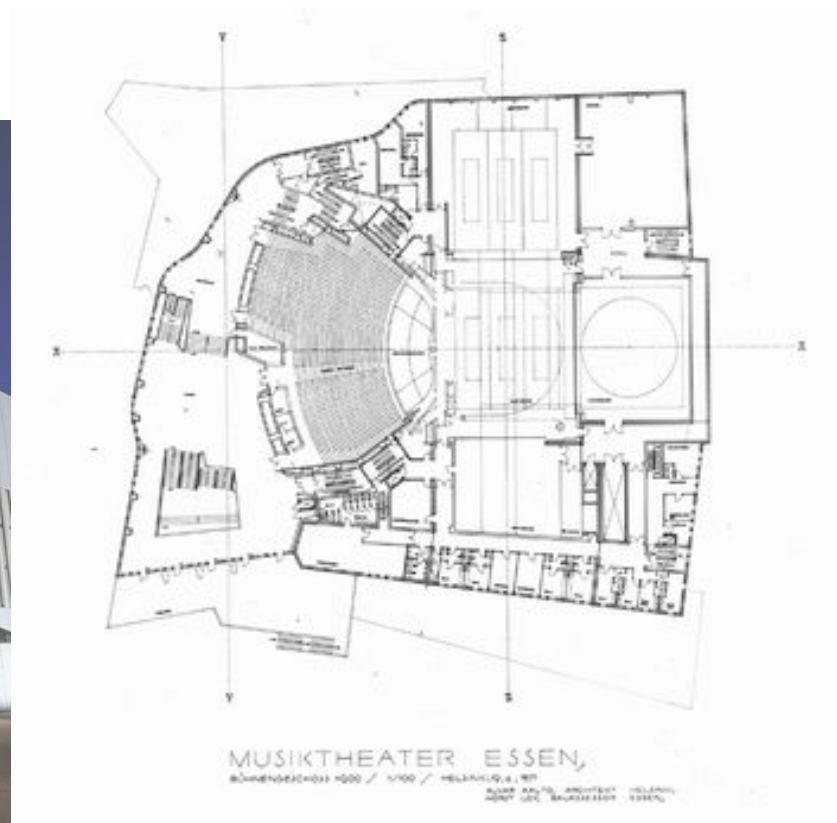
⁶ Finlandia Hall (n.d). *Finlandia Talo Hall premises: Finlandia Hall main auditorium.*



*'The bold shape of the Main Auditorium's balconies is set off against acoustical baffles.'*⁷

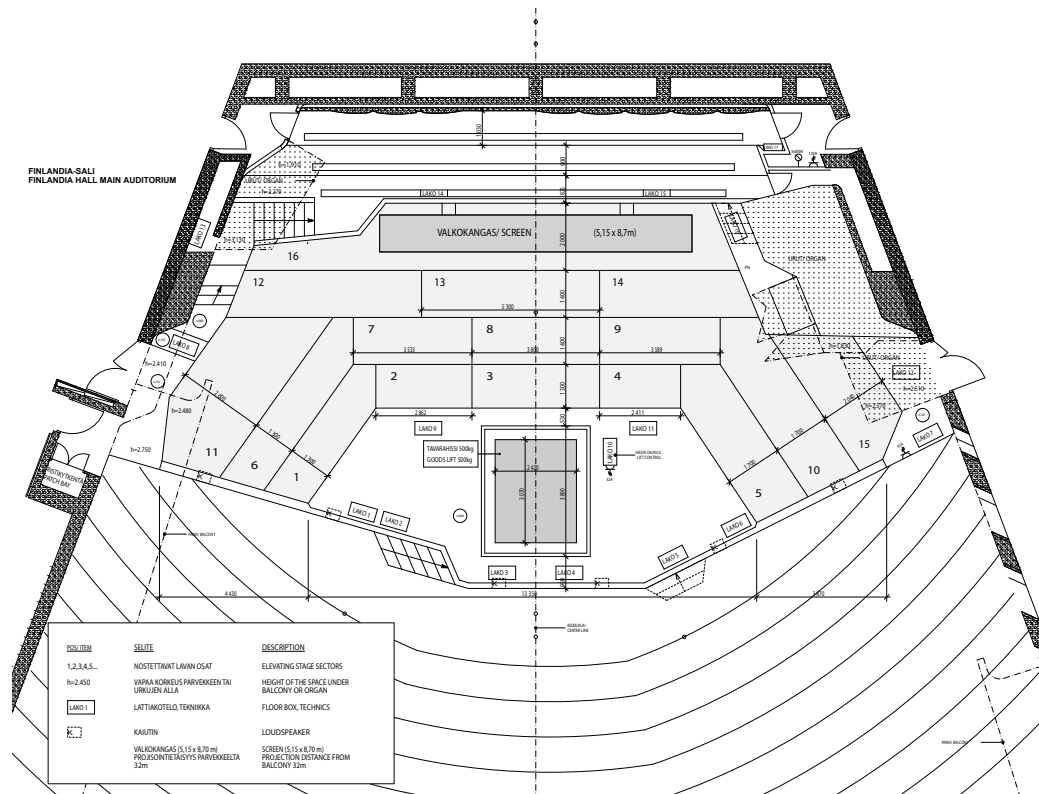
The interior of Finlandia Hall demonstrates the different themes shown as how Aalto envisioned. The Main Auditorium was originally designed as a concert hall and is a similar design to the Essen Opera House, in the Aalto theatre. Where the same modern, curved architectural design is applied, in order to stimulate the imagination of visitors on site. A similar feature is the ceiling, that has a system of metal netting that is permeable by sound waves but is hidden from sight, which helps to conceal an 'echo chamber' above the moveable acoustic screens producing the 'flexible acoustics' for the auditorium.

*'Essen Opera House in Aalto theatre floor plan.'*⁸



⁷ Finlandia Hall (n.d). *Finlandia Hall main auditorium's interior*.

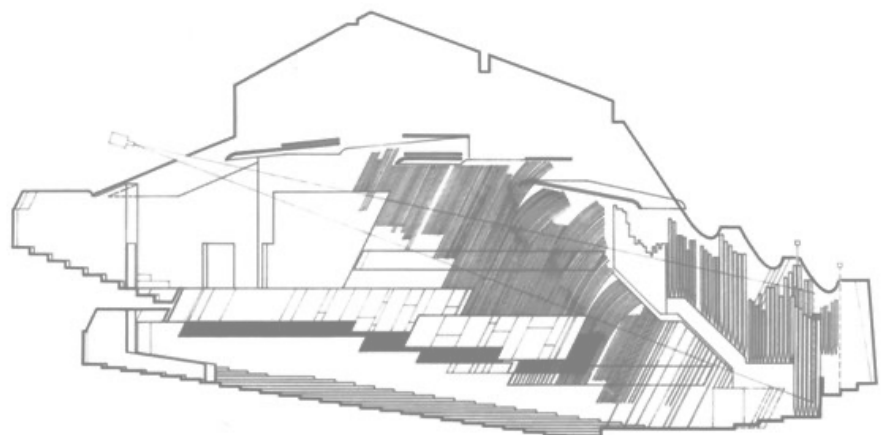
⁸ Wieler, P. (n.d). *Aalto Opera House*.



‘Finlandia Hall stage map.’⁹

The Main Auditorium is a popular venue used for various types of occasions. The floor was finished with oak parquets and the blue sections of the wall are Finnish birch.¹⁰ The stage consists of platforms, allowing sound to be listened to from every corner of the room. In terms of acoustics, there was a lot of discussions especially understanding the science of a big space. For example, Aalto had envisioned a space like this that would provide as good acoustics as a medieval church. In the section, the tower is fully open, and the ceiling was lowered to its present height, along with the stage height being increased by half a meter. The overall hall has an asymmetrical design to the auditorium.

‘Section of the Main Auditorium.’¹¹



⁹ Finlandia Hall (October 2020). *Finlandia Hall stage map*.

¹⁰ Räsänen, P. (March 2018). *Finlandia Hall, Iconic architecture by Alvar Aalto*.

¹¹ N/A (May 2012). *Finlandia, Helsinki: Section of the Main Auditorium*.

02 SPACE AND INTERIOR

Piazza



'A large foyer called the Piazza, inspired by the Italians as a term where people gather,'¹²

The Finlandia Hall foyer, Piazza [1,340m²], is the focal point of events. A space that can be transformed according to various need and is always a source of impression. In terms of lighting and nature, Aalto demonstrates this aspect at the floor-to-ceiling windows, which invites the scenery of Töölönlahti park to be a part of any event. Space holds 656 dinner tables, 488 round tables and 100 cocktails, which can be linked to the restaurant and the Helsinki Hall Foyer.¹³ The term 'Piazza' goes back to Italy, of which Aalto admired greatly in its marketplaces and squares where people gather to see each other. And this is what Aalto wanted to bring this into his design concept, where people gather in one space after any meetings or events to discuss or to just hang around to admire Finlandia Hall's beauty inside and out, such as the soaring windows for a large foyer, which allows natural lighting for indoor plants to grow and animate the space, even in late January.¹⁴ The floor in this space was finished with high-quality English wool carpeting.



¹² Finlandia Hall (March 2019). *Finlandia Hall: Piazza, foyer.*

¹³ Finlandia Hall (n.d). *Finlandia Talo Hall premises: Piazza, Foyer.*

¹⁴ Finlandia Hall (October 2020). *Finlandia' Piazza, Foyer.*

02 SPACE AND INTERIOR

Helsinki Hall



‘Helsinki Hall Auditorium with raked seating for 340 people.’¹⁵

Helsinki Hall offers a truly unique atmosphere in one space, where the audience surrounds the stage from three sides. And despite its name, the auditorium also invites anyone from the outside of the city. The hall’s foyer acts as a multi-functional space for a range of events, as well as a place for food and drinks for breaks and intermissions. This is located in the main building with an auditorium with raked seating for 340, with a stage measured at 63m2.¹⁶



‘Hall often used for workshops in a way to promote their business product design.’¹⁷

¹⁵ Finlandia Hall (October 2020). *Finlandia Hall’s Helsinki Hall Auditorium*.

¹⁶ Finlandia Hall (n.d). *Finlandia Talo Hall premises: Helsinki Hall*.

¹⁷ Finlandia Hall (October 2020). *Finlandia Hall’s Helsinki Hall Auditorium*.

02 SPACE AND INTERIOR

Congress Wing

On the south end of Finlandia Hall, the Congress wing was added in 1973, which consists of boardrooms, halls and meeting rooms. There are many boardrooms available for any type of meeting, an example is this 52m² meeting space for 12 people, where the guests can enjoy the Scandinavian design, featuring Oxford chairs by Arne Jacobsen. A distinctive feature in the room is the ceiling's light well, creating a special atmosphere with its indirect light.¹⁸ Along with meeting rooms which are functional, and light filled accommodating specific number of groups. A space opposite to formal gatherings but is a small but functional meeting space. Also, it is well-suited to being used for group work together with other space in the Congress wing.¹⁹

'Congress wing shaped as a series of concave bays to fit around existing trees.'²⁰



¹⁸ Glynn, S. (2010). *Finlandia Hall and Congress Centre*.

¹⁹ Finlandia Hall (n.d). *Finlandia Talo Hall premises: Congress Wing*.

²⁰ N/A (2010). *Finlandia Hall: Congress wing*.

*'Meeting room 12 at the Congress Wing: a small but functional meeting space, featuring a unique 12-person table designed by Alvar Aalto, with its own rest room and a compact cooking facility.'*²¹



*'Meeting rooms 22, 23 and 24 are multipurpose meeting spaces with view over the Töölönlahti park.'*²²



²¹ Finlandia Hall (October 2020). *Finlandia Hall's meeting room 12.*

²² Finlandia Hall (October 2020). *Finlandia Hall's meeting rooms 22, 23 and 24.*

02 SPACE AND INTERIOR

Hall A & B

The largest space in the Congress Wing, level 3 is Hall A, a large space that can be easily transformed into a vibrant space for celebrations, with a magical atmosphere created by Alvar Aalto's gorgeous arched windows. Interpretation technology and a built-in monitor room make the space suitable for international events. Hall A can be combined with the neighbouring Hall B, creating a functional space for events that can accommodate over 900 guests.²³

*'Exhibition space in Hall A, light and sound control room at the back of the space, with a stage for panel members seating of 600.'*²⁴



*'Hall B is combined with Hall A: stage for panel members seating 250.'*²⁵



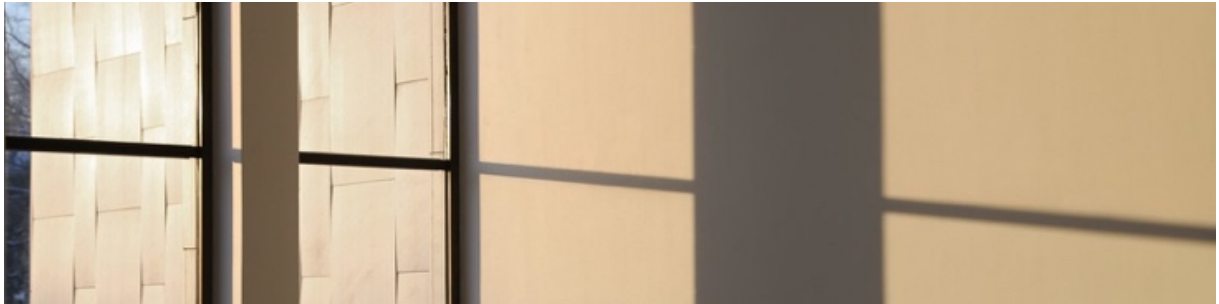
Aalto tends to carry more modern and minimalist themes and styles into his buildings and in the interior aspects. He was seen as the master of playing an object off against something quite regular in its composition. Of which he demonstrates the idea of beauty is seen more spatially in each room. All of the materials speak the language of nature, simply without the technicality of using artificial tones.

²³ Finlandia Hall (n.d). *Finlandia Talo Hall premises: Hall A.*

²⁴ Finlandia Hall (October 2020). *Finlandia Hall's Hall A and sound control room.*

²⁵ Finlandia Hall (October 2020). *Finlandia Hall's Hall B is combined with Hall A.*

*'The interior designs of each lamp, piece of furniture, panel and flooring material and decorative board reflects the mature approach resulting from Aalto's long career as an architect.'*²⁶



*'An aloelike colonnade at the hall's entrance.'*²⁷



*'A wood ceiling in the smaller auditorium is punctured with skylights. Alvar Aalto designed Finlandia Hall from head to toe, such as the floor lamps in the café of Finlandia Hall. The winter sun is reflected in a window, accentuating the form of Aalto's lamp.'*²⁸



*'I section column seen in the interface of the base where the joint comes to the centre of the joint. A leather handrail with brass ends.'*²⁹

²⁶ Finlandia Hall (October 2020). *Finlandia Hall interior.*

²⁷ Finlandia Hall (October 2020). *Finlandia Hall's entrance.*

²⁸ Architectural digest (n.d). *Finlandia Hall's wood ceiling and floating lamp.*

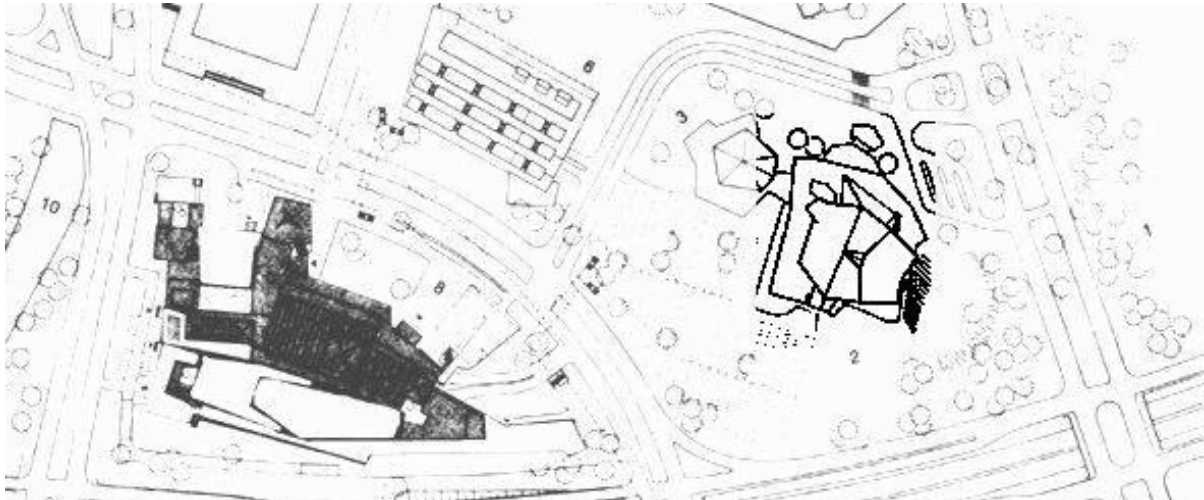
²⁹ Finlandia Hall (October 2020). *Finlandia Hall's furniture.*

02 SPACE AND INTERIOR

Philharmonic Berlin

Alvar Aalto was also quite popular in Germany, as he designed buildings there too. In terms of designing, Aalto took a softer version of modernism, which suited some people like Hans Scharoun. Hans interpreted this idea into designing the Philharmonic building in Berlin, seen as equally brilliant as the Finlandia Hall.

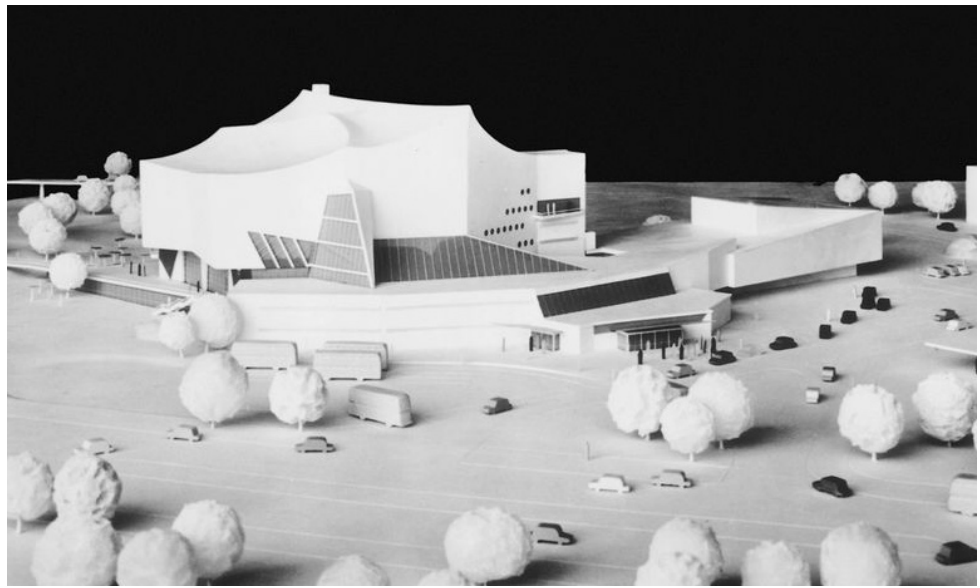
'Philharmonic Berlin: site plan showing two opera houses, similar to the Finlandia Hall with the Congress Wing.'³⁰



Philharmonic was designed in 1963, where Hans wanted to demonstrate his interpretation of organic and futuristic aesthetic into a concert, which served a purpose after the previous Philharmonic was destroyed in the Second world war. Similar to Finlandia Hall, From the centre, the music would be amplified and filtered throughout the auditorium, the music projects in every direction like a concave fishbowl. Both architects express a sense of balance and harmony with the music in their building. The Philharmonic shows complexity in its expressive interior spaces which are reflected in the exterior of the building. The tent-like structure is designed in a way that portrays a playful yet contained aesthetic that compliments the building spatially.³¹

³⁰ AD Classics (n.d). *Philharmonic Berlin: Site plan sketch showing two opera houses.*

³¹ Kroll, A. (January 2019). *AD Classics: Berlin Philharmonic / Hans Schroun.*



'This model shows the Philharmonie in its final location between Kemperplatz and Matthäikirchplatz.³²

In comparison of the Finlandia Hall, it is more controlled in a sense that flows throughout the building with ease. The irregular form of the hall shown in the layout of the main auditoria, where Aalto would open it more up. Everything in these plans were acoustically planned out, for example all the chairs are at different levels in order to deal with the acoustic. The proximity of people in the actual performance, simply provides viewing points to create a genius piece of work.



'The idea of spatially used in Berlin Philharmonic's program, creating in a dynamic presence.³³

³² Archiv Akademie der Künste Berlin (1956). *Model showing the Philharmonic.*

³³ Archdaily (n.d). *Berlin Philharmonic Hall/ acoustics.*

03 SITE ANALYSIS

Exterior and materiality



*'The square open towards Töölönlahti Bay, as the Finlandia Hall sits.'*³⁴

The landscaping of Finlandia Hall sets the scene by showing a greenery appearance, which helps to display Aalto's masterpiece. A venue was to be built on columns over the northbound railway track, and people approaching the centre by car would see the city opening up before them, a magnificent urban landscape with its facades mirrored in the water of Töölönlahti Bay. The fan-shaped square would welcome people in a wide embrace while the Parliament and the Railway station would provide a supporting flank to the sides.

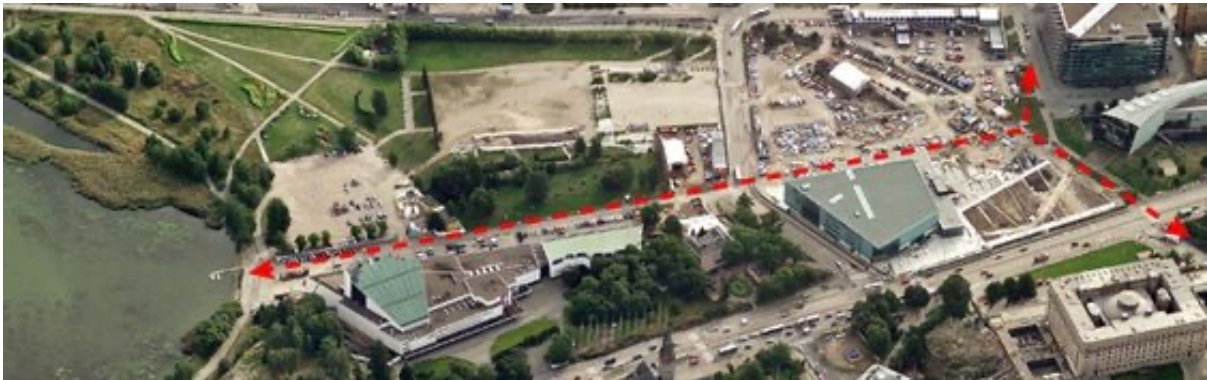


³⁵'The open, green spaces and the organised allocated trees help to pave as the entrance or a way for pedestrian to see the different perspective of the building.'

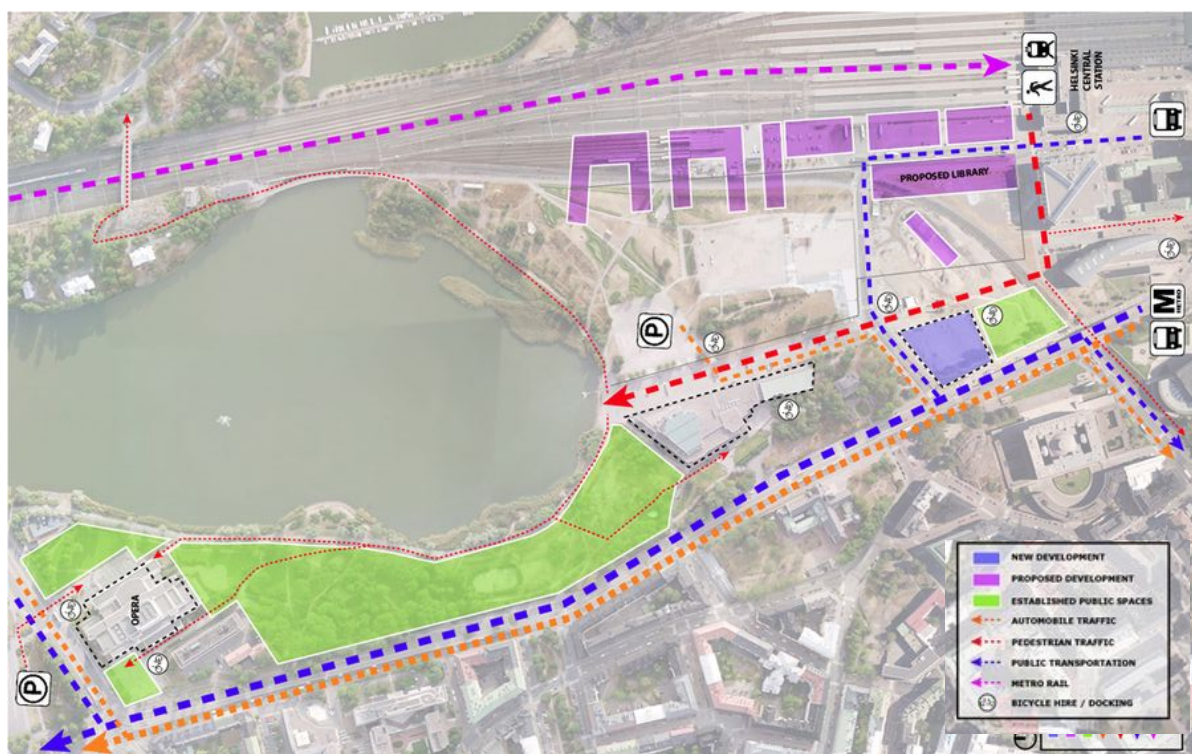
³⁴ N/A (n.d). *Finlandia Hall location and landscaping.*

³⁵ Karlson, C. (2015). *Aerial view of Finlandia hall location.*

Following the competition of Finlandia Hall and the abandonment of Aalto's proposed axis of public buildings to the north, Hesperia park's importance in the urban fabric would grow as one of the largest and the most popular public parks in central Helsinki. From this analysis, the park would encourage a refuge for pedestrians to be led away from such narrow sidewalks of traffic heavy Mannerheimintie road, creating a much larger for the exploitation of pedestrian traffic.³⁶



*'Site diagram/ core of pedestrian site approach and movement.'*³⁷



*'Site analysis on Finlandia Park, Royal Opera House... Site analysis of access, circulation, new development, and points of social engagement.'*³⁸

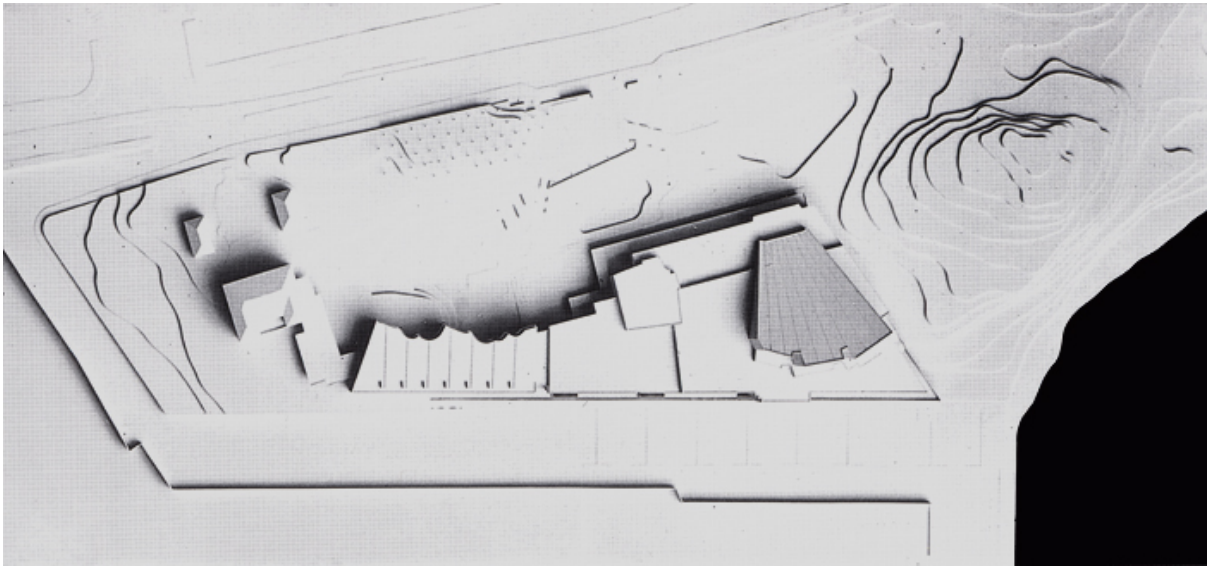
³⁶ Karlson, C. (2015). *Case study / Finlandia Park (Finlandia Hall & Helsinki Music Centre)*

³⁷ Karlson, C. (2015). *Site diagram/ core of pedestrian site approach and movement.*

³⁸ Karlson, C. (2015). *Site analysis on Finlandia Hall location.*

04 RENOVATION

Redevelopment of Töölönlahti



*'Site model of Finlandia Hall.'*³⁹



*'Exterior of Finlandia Hall: A series of stacked elongated rectilinear slabs.'*⁴⁰

Inspired by certain features of Italian architecture such as the façades, Aalto also brought over the Mediterranean culture to Finland by covering the entire façade of the building with thin, marble tiles. However, the marble tiles began to deteriorate over time, since the material did not match Finland's harsh climatic conditions. In terms of restoring the exterior in 1999, the marble panels yet began to bow a few years later, resulting in an architectural error. But on the other hand, the uniform bowing was seen as a beautiful effect.⁴¹ The proposal for a new surface for the façade became a part of the comprehensive renovation, based on extensive reports and tests. The objective is to find a more durable surface material that fulfils the requirements of the preservation order.

³⁹ Karlson, C. (2015). *Site model of Finlandia Hall*.

⁴⁰ Hill, D. (October 2010). *Exterior of Finlandia Hall*.

⁴¹ N/A (February 2016). *Building Exterior and Surroundings*.

The Renovation of Finlandia Hall is set to be carried out during 2022-2024. Finlandia Hall will be repaired and restored from top to bottom and renovated from plumbing to façade. In terms of restoring the interior, the lights with the marble walls, floors of natural stone and grand windows will be renovated to their original setting. Due to attracting more of the public in its setting, accessibility and lifts will be improved. New exhibition space is planned and the connection between the building and Töölönlahti park will also be improved. A larger kitchen will also be built to facilitate and streamline the work of the staff. Development of technology over the years led to an impressive amount of modern technology installed into the building.⁴²



*'Site map shown in more context.'*⁴³

⁴² N/A (May 2020). *Renovation of Finlandia Hall*.

⁴³ Karlson, C. (n.d). *Site map shown in more context*.

05 CONCLUSION

The future of Finlandia hall

Finlandia Hall is a careful balance of monumental and democratic. A centre mass, clad in Carrara marble organised in a vertical tunning bond, rises spirelike from the building. The tallest volume of the composition provides an acoustical plenum over a 1,700-seat auditorium, a space that manages to be intimate, monumental, and informal all at the same time. To conclude, Finlandia Hall is seen as the peak of his career as an architect, designing many important buildings with various functions including churches, offices, housing, cultural centres and others in various countries. Aalto designed 500 individual buildings exactly 300 for those already built, especially in Finland. And Finlandia Hall was the pinnacle in his career. His idea of beauty was shown in Finlandia Hall in terms of the idea of spatiality, of which he focuses on three things which are; the way the design works, the attention to detail and the way the lighting blends within the design itself. Aalto oversaw every aspect of the venue's design from its asymmetrical exterior to the lighting, furnishings, and textiles used inside. And while he left no stone unturned, Aalto never veered into overly decorative, instead of forming a uniquely integrated space. The overall structure expresses a type of modernism in which it displays a form that did not necessarily dictate function, and where small detail played a crucial role within the overall composition.



BIBLIOGRAPHY

A critical essay about a piece of architecture post 1945.

- [1] Mindel, L.F. (February 2016). *The Architect's Eye: Explore Alvar Aalto's Brilliant Finlandia Hall*. [Online]
(<https://www.architecturaldigest.com/story/alvar-aalto-finlandia-hall>)
[Accessed: December 17th, 2020]

- [2] Christie, S. (n.d). *Finlandia Hall by Alvar Aalto: Celebrating Light and Nature*. [Online]
(<https://www.re-thinkingthefuture.com/case-studies/a2912-finlandia-hall-by-alvar-aalto-celebrating-light-and-nature/>)
[Accessed: March 20th, 2021]

- [3] Tilburg, K.V. (n.d). *Equestrian Statues: Carl Gustaf Emil Mannerheim*. [Online]
([https://equestrianstatue.org/mannerheim/#:~:text=Carl%20Gustaf%20Emil%20Mannerheim&text=\(1867%20%E2%80%931951\)%20was%20a%20Finnish%20military%20leader%20and%20statesman.&text=Given%20the%20broad%20recognition%20in,the%20father%20of%20modern%20Finland](https://equestrianstatue.org/mannerheim/#:~:text=Carl%20Gustaf%20Emil%20Mannerheim&text=(1867%20%E2%80%931951)%20was%20a%20Finnish%20military%20leader%20and%20statesman.&text=Given%20the%20broad%20recognition%20in,the%20father%20of%20modern%20Finland))
[Accessed: December 13th, 2020]

- [4] Finlandia Hall (November 2015). *The Story of Finlandia hall – Finlandia-talon tarina*. Timestamp: 0:17 – 0:45 [Video]
(Available at: <https://www.youtube.com/watch?v=IH2JVHJExKs>)
[Accessed: January 21st, 2021]

- [5] Finlandia Hall (October 2020). *Finlandia Hall Main Auditorium and balcony map*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/finlandia-sali/>)
[Accessed: February 2nd, 2021]

- [6] Finlandia Hall (n.d). *Finlandia Talo Hall premises: Finlandia Hall main auditorium*. [Online]
(<https://www.finlandiatalo.fi/en/premise/finlandia-sali/>)
[Accessed: January 12th, 2021]

- [7] Finlandia Hall (n.d). *Finlandia Hall main auditorium's interior*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/finlandia-sali/>)
[Accessed: February 4th, 2021]

- [8] Wieler, P. (n.d). *Aalto Opera House*. [Image]
(<http://architectuul.com/architecture/aalto-theater-essen>)
[Accessed: January 19th, 2021]

- [9] Finlandia Hall (October 2020). *Finlandia Hall stage map*. [Image]
(Available at: https://www.finlandiatalo.fi/app/uploads/2020/10/lavakartta_stagemap._korotukset-pr_2krs_finlandia-sali.pdf)
[Accessed: January 13th, 2021]
- [10] Räsänen, P. (March 2018). *Finlandia Hall, Iconic architecture by Alvar Aalto*. [Online]
(<https://www.outdooractive.com/en/poi/uusimaa/finlandia-hall-iconic-architecture-by-alvar-aalto/26691141/>)
[Accessed: March 12th, 2021]
- [11] N/A (May 2012). Finlandia, Helsinki: Section of the Main Auditorium. [Image]
(Available at: https://www.archigraphie.eu/wp-content/uploads/2012/05/Aalto-Salle_Finlandia-Helsinki.jpg)
[Accessed: January 20th, 2021]
- [12] Finlandia Hall (March 2019). *Finlandia Hall: Piazza, foyer*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/piazza/>)
[Accessed: February 17th, 2021]
- [13] Finlandia Hall (n.d). *Finlandia Talo Hall premises: Piazza, Foyer*. [Online]
(Available at: <https://www.finlandiatalo.fi/en/premise/piazza/>)
[Accessed: February 17th, 2021]
- [14] Finlandia Hall (October 2020). *Finlandia' Piazza, Foyer*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/piazza/#header-gallery-10>)
[Accessed: February 17th, 2021]
- [15] Finlandia Hall (October 2020). *Finlandia Hall's Helsinki Hall Auditorium*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/helsinki-hall/#header-gallery-8>)
[Accessed: February 9th, 2021]
- [16] Finlandia Hall (n.d). *Finlandia Talo Hall premises: Helsinki Hall*. [Online]
(Available at: <https://www.finlandiatalo.fi/en/premise/helsinki-hall/>)
[Accessed: February 9th, 2021]
- [17] Finlandia Hall (October 2020). *Finlandia Hall's Helsinki Hall Auditorium*. [Image]
Available at: <https://www.finlandiatalo.fi/en/premise/helsinki-hall/#header-gallery-7>
[Accessed: February 9th, 2021]
- [18] Glynn, S. (2010). *Finlandia Hall and Congress Centre*. [Online]
(<http://www.galinsky.com/buildings/finlandia/index.html>)
[Accessed: February 19th, 2021]
- [19] Finlandia Hall (n.d). *Finlandia Talo Hall premises: Congress Wing*. [Online]
(<https://www.finlandiatalo.fi/en/all-premises/?location=congresswing>)
[Accessed: February 19th, 2021]

[20] N/A (2010). *Finlandia Hall: Congress wing*. [Image]
(Available at: <http://www.galinsky.com/buildings/finlandia/finlandia3.jpg>)
[Accessed: February 19th, 2021]

[21] Finlandia Hall (October 2020). *Finlandia Hall's meeting room 12*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/kokoushuone-12/#header-gallery-2>)
[Accessed: January 6th, 2021]

[22] Finlandia Hall (October 2020). *Finlandia Hall's meeting rooms 22, 23 and 24*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/kokoushuone-23/>)
[Accessed: January 10th, 2021]

[23] Finlandia Hall (n.d). *Finlandia Talo Hall premises: Hall A*. [Online]
(<https://www.finlandiatalo.fi/en/premise/a-sali/>)
[Accessed: January 15th, 2021]

[24] Finlandia Hall (October 2020). *Finlandia Hall's Hall A and sound control room*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/a-sali/#header-gallery-5>)
[Accessed: January 15th, 2021]

[25] Finlandia Hall (October 2020). *Finlandia Hall's Hall B is combined with Hall A*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/premise/b-sali/#header-gallery-4>)
[Accessed: January 12th, 2021]

[26] Finlandia Hall (October 2020). *Finlandia Hall interior*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/>)
[Accessed: January 9th, 2021]

[27] Finlandia Hall (October 2020). *Finlandia Hall's entrance*. [Image]
(Available at: <https://www.architecturaldigest.com/story/alvar-aalto-finlandia-hall>)
[Accessed: January 20th, 2021]

[28] Architectural digest (n.d). *Finlandia Hall's wood ceiling and floating lamp*. [Image]
(Available at: <https://www.architecturaldigest.com/story/alvar-aalto-finlandia-hall>)
[Accessed: January 20th, 2021]

[29] Finlandia Hall (October 2020). *Finlandia Hall's furniture*. [Image]
(Available at: <https://www.finlandiatalo.fi/en/>)
[Accessed: January 9th, 2021]

[30] AD Classics (n.d). *Philharmonic Berlin: Site plan sketch showing two opera houses*. [Image]
(Available at: https://images.adsttc.com/media/images/5037/faa5/28ba/0d59/9b00/075f/medium_jpg/stringio.jpg?1414206735)
[Accessed: February 20th, 2021]

[31] Kroll, A. (January 2019). *AD Classics: Berlin Philharmonic / Hans Scharoun*. [Online]
(<https://www.archdaily.com/108538/ad-classics-berlin-philharmonic-hans-scharoun>)
[Accessed: March 21st, 2021]

[32] Archiv Akademie der Künste Berlin (1956). *Model showing the Philharmonic*. [Image]
(Available at: <https://www.berliner-philharmoniker.de/en/philharmonie/architecture/>)
[Accessed: March 11th, 2021]

[33] Archdaily (n.d). *Berlin Philharmonic Hall/ acoustics*. [Image]
(Available at: <https://www.archdaily.com/108538/ad-classics-berlin-philharmonic-hans-scharoun>)
[Accessed: March 11th, 2021]

[34] N/A (n.d). *Finlandia Hall location and landscaping*. [Image]
(Available at: <https://www.visitfinland.com/fr/mystay/product/guided-tours/30084/>)
[Accessed: March 10th, 2021]

[35] Karlson, C. (2015). *Aerial view of Finlandia hall location*. [Image]
(Available at: <https://www.chriskarlson.com/blog/2011/11/22/rotch-case-study-finlandia-park-finlandia-hall-helsinki-musi.html#:~:text=Following%20the%20completion%20of%20Finlandia,public%20parks%20in%20central%20Helsinki>)
[Accessed: February 14th, 2021]

[36] Karlson, C. (2015). *Case study / Finlandia Park (Finlandia Hall & Helsinki Music Centre)* [Blog]
(Available at: <https://www.chriskarlson.com/blog/2011/11/22/rotch-case-study-finlandia-park-finlandia-hall-helsinki-musi.html#:~:text=Following%20the%20completion%20of%20Finlandia,public%20parks%20in%20central%20Helsinki>)
[Accessed: February 14th, 2021]

[37] Karlson, C. (2015). *Site diagram/ core of pedestrian site approach and movement*. [Image]
(Available at: <https://www.chriskarlson.com/blog/2011/11/22/rotch-case-study-finlandia-park-finlandia-hall-helsinki-musi.html#:~:text=Following%20the%20completion%20of%20Finlandia,public%20parks%20in%20central%20Helsinki>)
[Accessed: February 14th, 2021]

[38] Karlson, C. (2015). *Site analysis on Finlandia Hall location*. [Image]
(Available at: <https://www.chriskarlson.com/blog/2011/11/22/rotch-case-study-finlandia-park-finlandia-hall-helsinki-musi.html#:~:text=Following%20the%20completion%20of%20Finlandia,public%20parks%20in%20central%20Helsinki>)
[Accessed: February 14th, 2021]

[39] Karlson, C. (2015). *Site model of Finlandia Hall*. [Image]
(Available at: <https://www.chriskarlson.com/blog/2011/11/22/rotch-case-study-finlandia-park-finlandia-hall-helsinki-musi.html#:~:text=Following%20the%20completion%20of%20Finlandia,public%20parks%20in%20central%20Helsinki>)
[Accessed: February 14th, 2021]

[40] Hill, D. (October 2010). *Exterior of Finlandia Hall*. [Image]
(Available at: <https://finlandiahall.wordpress.com/2016/02/06/building-exterior-and-surroundings/#:~:text=Finlandia%20Hall%20is%20located%20in,of%20Helsinki%2C%20overlooking%20T%C3%B6%C3%B6l%C3%B6bay.&text=Inspired%20by%20Italian%20architecture%2C%20Aalto,with%20thin%2C%20Carrara%20marble%20tiles>)
[Accessed: March 22nd, 2021]

[41] N/A (February 2016). *Building Exterior and Surroundings*. [Online]
(Available at: <https://finlandiahall.wordpress.com/2016/02/06/building-exterior-and-surroundings/#:~:text=Finlandia%20Hall%20is%20located%20in,of%20Helsinki%2C%20overlooking%20T%C3%B6%C3%B6l%C3%B6bay.&text=Inspired%20by%20Italian%20architecture%2C%20Aalto,with%20thin%2C%20Carrara%20marble%20tiles>)
[Accessed: March 22nd, 2021]

[42] N/A (May 2020). *Renovation of Finlandia Hall*. [Online]
(<https://www.hel.fi/helsinki/en/housing/plots-land-buildings/space/renovation-of-finlandia-hall>)
[Accessed: March 12th, 2021]

[43] Karlson, C. (n.d). *Site map shown in more context*. [Image]
(Available at: <https://www.chriskarlson.com/blog/2011/11/22/rotch-case-study-finlandia-park-finlandia-hall-helsinki-musi.html#:~:text=Following%20the%20completion%20of%20Finlandia,public%20parks%20in%20central%20Helsinki>)
[Accessed: February 14th, 2021]