Alvar Aalto won the competition design for the Viipuri Library in 1927. In 1933, the Viipuri City Council decided changing the site location from an urban setting along a main road to being within Torkkeli park. This change allowed Aalto to open up the building to light on all sides.

Construction began in 1934, and the library was completed October 13, 1935. Contrary to published accounts, this building was not destroyed in the Finnish-Russian war, although since 1939 Viipuri (now Vyborg) has been in Russian territory. The library is in a poor state of repair and has undergone alterations.

The building's construction is stone cladding and stucco. And the library's functions include: lecture hall, children's library, periodical room, reading room, stacks, and administrative offices.

**Bibliography**


Building Plan Analysis

Second Floor (+1)

Below Ground (-1)
Roof Plan (+2)

Ground Floor (0)
Paul David Pearson: “In Viipuri Library Aalto possessed enough assurance to go beneath the skin of the building and fluently integrate the modern esthetic into his handling of volumetric, functional, spatial, and environmental relationships with a freedom and skill he had never before shown.” “The Viipuri interiors, as built, were splendid, and the derivations of the furnishings alone deserve to be included in any history of modern design theory.” Alvar Aalto and the International Style 1978, 123.

Alvar Aalto: “When I designed the city library at Viipuri for long periods of time I pursued the solution with the help of primitive sketches from some kind of fantastic mountain landscapes with cliffs lit up by suns indifferent positions, [from which] I gradually arrived at the concept for the library building. The library’s architectural core consists of reading and lending areas at different levels and plateaus while the centre and control area form the high point above the different levels. The childish sketches have only a direct connection with the architectural conception, but they tied together in section and plan with each other and created a kind of unity of horizontal and vertical structures.” (Spens, 36)
Although the most references show three main floor plans and the roof plan, it may be quite deceiving. Three floor plans, but after closer analysis of plans and sections, one will find six different levels of elevation. On ground, upon entrance one finds themself in a large entry hall, and to the right is the lecture hall. The separated entrance to the Children's Library is slightly lower in elevation and is on the south side of the plan. The stock room lies about 2.5 meters below the children's library. If one follows the entry path, they will be lead through a series of stairs that will lead them to 2 different levels of book stacks and reading areas. On that same level is the Administrative Offices. The Circulation Desk is at the highest point overlooking the reading area and book stacks.
This series of diagrams represents the solid and void of the Viipuri Library. The red areas mark the stock room, administrative offices, bookstacks, and vertical circulation. The transparent yellow shows the continual flow of open public spaces that are present throughout the Library. Starting with the entrance that smoothly leads you to the lecture hall, reading rooms, or book stacks.

After analyzing the series of level changes from the plans and diagrams on the previous pages, one might think that the circulation through the building might be quite confusing. But rather Aalto is able to design a very fluid path through this library. As seen in the diagrams.

In looking at the hierarchy of spaces, one may notice the green sphere that represents the circulation desk. It can oversee the reading room to the east as well as the book stacks to the west.
The Viipuri library is particularly interesting in section. From the ground level, one ascends a switchback set of stairs to a skylighted split level space housing the stacks, reading area, and control desk. Many of the elements of this library reappear in later Aalto libraries including Seinajoki, Rovanemi, and Mount Angel, as well as the National Pensions Institute and the Wolfsburg cultural center. The undulating wood ceiling in the Viipuri auditorium is famous, but was unfortunately removed by the Russians (Spens 51).
"In a library, light is a primary consideration. The light streamed in through round, conical skylights, about 6ft. in diameter. The round form resulted in the most satisfactory inner stress condition for the horizontal glass surfaces (as in the case of a drop of water), because in a cold climate the ever-present danger of cracking must be avoided at all costs" (Fleig 48).

The sunlight did not stream in directly, but was reflected in thousands of reflection lines which resulted from the conical, funnel-like form of the skylight, so that without the use of diffuse glass, shadow-free, diffuse light was obtained, which is ideal for the reader who could take his book to any point in the room without being bothered by shadows or sharp sunlight (Fleig 49).
The artificial lighting followed the same principles of the daylighting. The light was designed to fall on the book diagonally and at all directions in order to avoid shadows. The placement of the fixtures were between the skylight openings. It is possible that Aalto was trying to mimic were the natural daylight came in, in order to achieve similar surroundings and environment when comparing the day to the evening.
The picture above is a view of the main entrance hall of the Viipuri Library where Malcom Quantrill states: "It is this concern with lighting, and with an overall lightness and airiness, beginning with the entrance hall and its transparent connection to the staircase that goes up to administrative offices, through to the top lighting of the reading areas, that makes the Viipuri Library a truly modern building. The concept of the library as a civic symbol, which had dominated Aalto’s first two designs, had given way to the idea of library as an invitation to read." AlvarAalto, A Critical Study, 1983, 63. The diagram describes the relationship between the entrance and the remainder of the program. (Entry denoted in green.) This relationship is spoken by Alvar Aalto where he states: "The childish sketches have only a direct connection with the architectural conception, but they tied together in section and plan with each other and created a kind of unity of horizontal and vertical structures." (Spens, 36)
Book Stack, Circulation Desk, and Reading Room beyond.

Children's Library.
Sigfried Giedion: “Aalto’s treatment of the undulating wooden ceiling of the Viipuri Library’s lecture hall is of great historical importance... Alvar Aalto is, like Le Corbusier, one of the few architects who in our times has tried anew to attack the vaulting problem in a way peculiar to his period. In the intimate hall of the Viipuri Library the irrational curves of the ceiling glide through space like the serpentine lines of a Miro painting. Of course, the architect himself can prove, with meticulous acoustic diagrams, that the undulating form he gave the ceiling enables sound to reach the human ear more perfectly. Here, therefore, scientific reasoning and artistic imagination have merged to free architecture from that rigidity which is today an ever-present menace.” Space, Time and Architecture 1962,579, 582.
Ventilation System

In order to completely insulate the library from traffic noise, the exterior walls were built 30 inches thick, and contained ventilation ducts and mechanical piping. Ventilation was achieved exclusively with fresh air which received a minimum of filtering and pre-heating. For the heating system, ceiling radiant heating was selected. In the diagram, the orange represents the walls that were 30 inches thick and the blue is the mechanical room.

Children vs. Adult

This is a simple diagram showing the children's area compared to the adult area. It is interesting that the children are given their own entrance that is opposite the main entrance. It creates an entry axis that connects the remainder of building's functions. The orange is the children's library and the cyan is the main library.
Viiipuri Library, Alvar Aalto