

# ARCHITECTURE

AT RICE UNIVERSITY

DESIGNATES A SERIES OF REPORTS ON THOUGHTS AND INVESTIGATIONS FROM THE DEPARTMENT OF ARCHITECTURE. IT IS PUBLISHED IN THE BELIEF THAT THE EDUCATION OF ARCHITECTS CAN BEST BE ADVANCED IF TEACHERS, STUDENTS, PRACTITIONERS, AND INTERESTED LAYMEN SHARE IN WHAT THEY ARE THINKING AND DOING.

No. 4

MARCH, 1962









## ILLUSTRATIONS

Green Gold\*

Finnish Granite - Aalto's Office\*

National Pension Housing, Munkkiniemi\*

Teachers' College, Jyvaskyla\*

Seinajoki Church\*

Keski-Suomen Museo, Jyvaskyla\*

House of Culture, Helsinki\*

Saynatsalo

Entrance from Bus Stop\*

Stairs to Upper Court\*

Brick and Window Detail\*

Shopping Area\*

Stairway Detail\*

Section through Library and Courtyard\*\*

East Facade\*\*

\* Photographs courtesy of Scott D. Hamilton, Jr.

\*\* Photographs courtesy of Praeger Publisher's, New York.



## AALTO'S ARCHITECTURAL HERITAGE

While many architects in the United States are clutching in the vacuum of leadership left by the death of Frank Lloyd Wright, few have thought to look outside our country. Instead they speak of Minoru Yamasaki, Edward D. Stone, Paul Rudolph and until recently of the late Eero Saarinen. However, a group of Scandinavians comes the closest in assuming the spirit of Wright because of their search for an honest expression in natural materials. Aalto is the foremost of this group of Finns, Norwegians and few Swedes. The rest of the world has gone mad with rational architecture of steel and glass boxes with endless repetitions of space cages, or they have gone to the other extreme by using silly chrome and tinsel twists and curves that are unrelated to the practical problems of the users.

Why is this isolated Finnish architect, Alvar Aalto, a Master Architect? First, to understand Aalto, one must know the Finland he personifies, the national romantic movement from which he emerged, and the direction in which Finnish architecture is moving. His influence on the formation of "Scandinavian Modern," its impact on the world of the early 30's, and his continued leadership make him a Master Architect.

The explanation for Aalto's work can be found in his devotion to little Finland, his position as its most honored citizen, his assumed obligations during peace and war, and his past, present, and future projects, and the laboratory conditions under which he creates. It also explains why his greatest efforts are at home rather than overseas.

As in the case of the other universalists, Aalto tries to be the total artist. To him, each problem demands a unique solution. He has no dogmatic philosophy to trap his freedom of movement. Aalto feels free to explore, and he finds his form of truth in Architecture. Because of the high esteem, the Finnish architect has power and freedom in dealing with his clients. They usually come with limited budgets and give the architect complete freedom to solve their problems and deal with the most practical solutions, and Aalto is a very practical man with details. He feels that no money should be spared on luxury items or mistakes in an economical society. If an architect wastes money, it is a scandal.

Aalto refuses to lecture, write books, attend congresses, to self-advertise or court publicity. Because of this privacy, he has the






peace and solitude to concentrate on Architecture itself, not the fringe benefits. His vital energies and time are devoted to the "thing itself."

In Finland the creative artist, athlete, or intellectual, as in ancient Greece, is given a place of respect and honor. The militarist, business entrepreneur, or politician is not popular except during crisis. For example, in Finland the Prime Minister calls upon Architect Aalto, not vice versa. In some respects the Finns treat Aalto as a living god, a position given in the past to Sibelius, Paavo Nurmi, and Marshal Mannerheim. Perhaps after Aalto, some of the designers such as Tapio Wirkkala, Ilmari Tapiovaara, or Timo Sarpaneva, or some Olympic hero in skiing will take his place.

Finland lies at the cross-roads of east and west historically and has come under a multitude of influences. Finland was under Swedish domination until 1809 when she surrendered to become a semi-autonomous Duchy of Russia. The Russians used dictatorial edicts to Russianize the Finns. They also brought Carl Ludwig Engel, the first of a series of foreign architects sent to Finland by the Russians, to plan the city of Helsinki. Earlier he had planned Talinn and St. Petersburg. The third influence was German, inasmuch as Germany was the only principal power on the Baltic, excluding Russia and Sweden, with whom the newly independent nation could ally after 1917. Even until the German defeat during World War II, a German prince was considered as a possible Finnish monarch. This close influence was manifest in the number of Finns who attended German universities and who learned the German language. The two countries were also closely tied by trade contracts. With the outbreak of World War II, when Germany fought Russia through Finland and the Finnish soldiers were forced under the armistice to drive the Germans from Lapland, this exchange stopped. The fourth and current influence is Anglo-Saxon, American business and English culture. English replaced German as the third language, after Finnish and Swedish. Some say Finland has the oldest people and is the youngest nation of Europe, and America has the youngest people and the oldest government of the world.

Not only does geography place Finland in an isolated position between east and west, but the Finnish people are solitary rather than gregarious by nature. The Finns, as the Hungarian and Baltic peoples, migrated out of Central Russia and found privacy in the northern forest and lake country. Since the language is one of the most difficult in the world, there are few translations of Finnish



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works and few foreign books are introduced from abroad. This isolation, the cross-neutralization of the four major foreign influences, the geographical and sea barrier, the solitary nature of the people, and the language barrier have proved to be assets. The Finns do not copy or imitate the latest vogue, are not awed by architectural magazines, and do not feel inferior in the face of accomplishments of wealthier or larger nations.

A Finnish national movement, called the "National Romantic," began at the turn of the century. It was sired by the Russian attempt to stamp out "Finnishness." Because Sibelius expressed in music the long suffering and deep feelings of the people for their beloved forests and lakes, and because his "Finlandia" portrayed the sounds of the singing woods and the tumult of battle, the government, upon gaining independence in 1919, granted the musician a lifetime pension in gratitude. Aalto is referred to as the "Sibelius of Architecture."

From this country of the north came the marathon and long distance runners who captured the Olympic world and its gold medals even when there was no such country as "Suomi." In architecture Eliel Saarinen startled the world with his design of the Helsinki Terminal in 1906 and by winning second prize in the Chicago Tribune Competition of 1922. It was just following this period that Alvar Aalto's star appeared when he won the prize for the Paimio Sanatorium in 1929, his New York World's Fair Pavilion in 1939, and his plywood furniture designs by ARTEK won acclaim. Similarly, Viljo Revell attained fame with his prize for the international competition for the Toronto Town Hall, termed by Frank Lloyd Wright as a significant architectural break-through; and Revell placed alongside Eero Saarinen in the W. H. O. competition. This younger Saarinen was looked upon with pride as a "son of Finland," although he emigrated to the United States with his father at an early age.

This intense patriotism and identity with one's country in a search for the expression of basic honesty in the arts, whether in architecture, glassware, ceramics, textiles, wood, or metals, has caused Finland to be dubbed by the NEW YORK TIMES as the "Land of Integrity."

The National Romantic Movement, similar to Art Nouveau, may have ended with national independence, but the after-effects lingered. Eliel Saarinen, born in 1873, was its chief exponent. He was known for his Finnish Pavilion at the Paris World Fair in 1900, the working and living center of Hvittrask near Helsinki, Central Stations in Helsinki and Viipuri (1904-14), Estobank in Reval (1912), the town halls in Lahti and Joensuu (1912-13), and lastly his Chicago Tribune



Prize, after which, at age 55, he came to the United States to head Cranbrook Academy. Seldom known are his Military Academy at Munkkiniemi, the National Museum in Helsinki, and his suburban planning for Munkkiniemi.

Lars Sonck, not as well known to the world, was the H. H. Richardson of the movement. He built in bold masonry forms using granite, concrete, and space. He was a strong individualist who built churches while Saarinen designed public buildings with collaborators Gesellius and Lindgren. The Kallio Church of 1908, the Church of St. Michael in Turku in 1905 (won as a student), the large Church of St. John in Tampere, the Helsinki Telephone Building (1909), the Eira Hospital, and the Stock Exchange of 1911 are among his buildings. Others of renown were Frosterus for the Stockman Department Store; Siren for the massive and classic Parliament Building; and Lindgren for his lyrical Olympic Stadium.

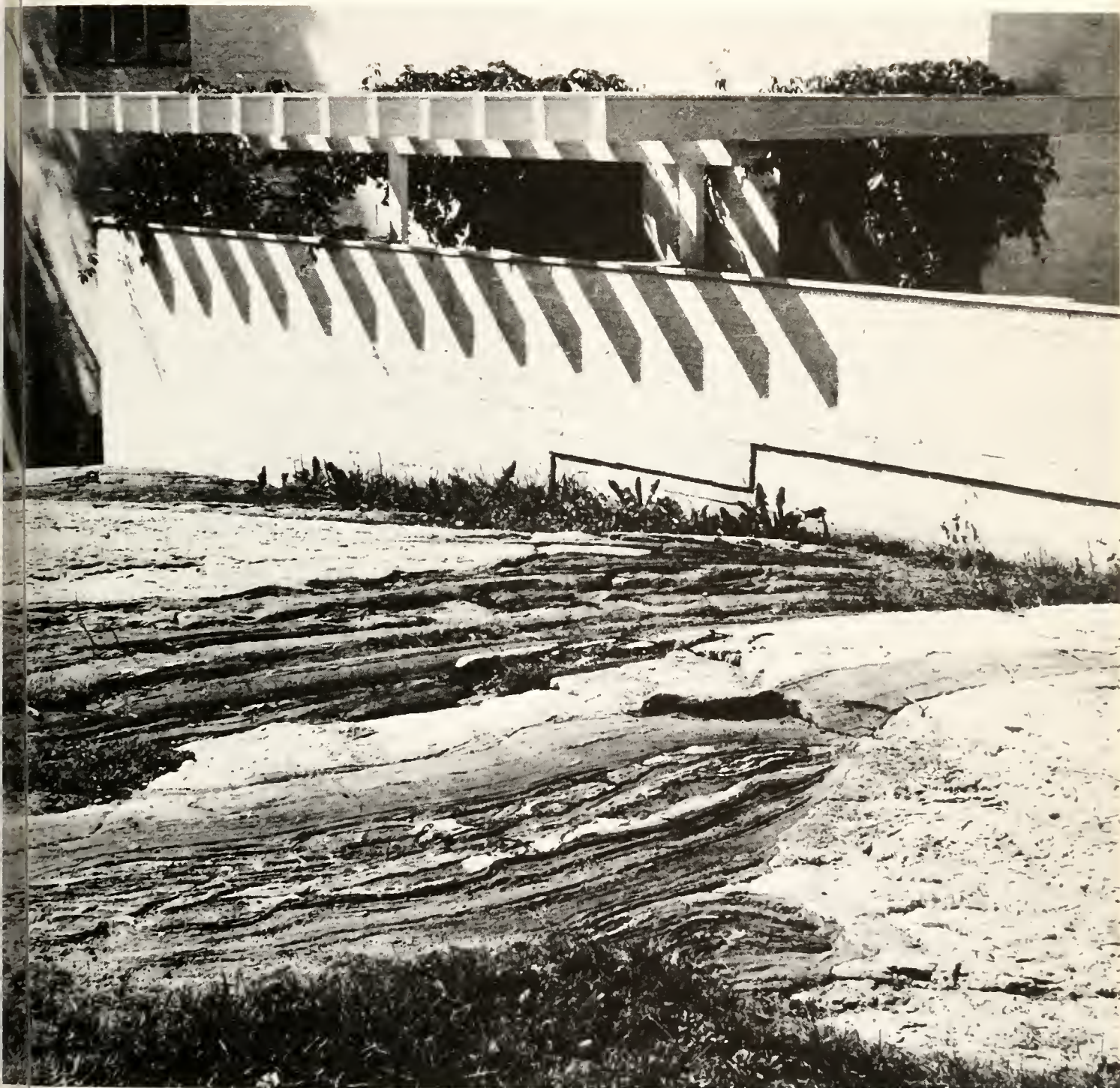
During the twenties, Architects Aalto, Byrggman, and Huttenen gradually emerged. They were influenced in the beginning by some of the currents of Central Europe. Bryggman designed hotels, chapels, insurance offices, and the Vierumaki Sports Institute; and Aalto, now 30, began his Turku practice with a block for an Agricultural Co-operative, followed rapidly with the Turun-Sanomat Building, and the Paimio Competition. Aalto is the last link with the national romantic heritage that died with the coming of independence, the foreign influences of the twenties (especially that of LeCorbusier), the period of pre-war "Scandinavian Modern," the post-war housing planning and reconstruction, and lastly this new period of international competitions and technological advance. He continued on into a new adventurous period led by Wright, the late Mendellsohn, and by Mies, LeCorbusier, and Gropius. As the youngest of the pioneers, Aalto is just now making his full potential felt in the world of architecture.

#### SUGGESTED REFERENCES:

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Finnish Granite - Aalto's Office



## THE ARCHITECTURE OF AALTO

Sigfried Gideon, in his monumental book, Space, Time and Architecture, points to Aalto as important in the development of organic architecture:

"The European development based on constructive means and the new visual approach had first to clear the atmosphere by pure functionalism. This was necessary, unavoidable, and healthful, but the moment that means of expression had been found, the clearing up accomplished, then again the urge to be organic could be felt. On another level and by other ways than Wright's, it is moving toward the organic. In the northern countries the work of the Finnish architect Alvar Aalto indicated this not only there. On another level European and American architecture may find a new and common path."

Amid the present confusion of shapes and forms plaguing the architecture of western society, there are several courses being followed. Professor Aalto indicated this in his talk at the dedication of the Finnish architectural exhibition in Stockholm. First is the tendency towards large scale repetition and monotony, as in public housing units. Second is the tendency towards exhibitionism in design concept, but lack of quality details. A third danger is that of gigantism -- the loss of human scale in society.

Peter Blake ascribed mastery of space to Wright, of form to Le Corbusier, of structure to Mies, and in these same terms we can only think of Aalto as a master "of humanity" in architecture. Aalto's course has been one of treating human problems with human solutions, of adopting warm and natural materials, and of treating each design as a laboratory research problem in itself.

To maintain quality, he feels he must give attention to details. Therefore, he does not take the entirety of large commissions as American architects are prone to do. For example, having just planned the new Centrum for Helsinki, he would find it impossible to attempt more than a few buildings -- perhaps the opera house, post office annex, or a key business building -- and the other commissions would go to other architects either by competition or allocation. Then, within the opera house, he can design each detail down to the lamps and chairs. This is a total design of quality, not partial design with quantity.

Aalto's concern for details, such as a staircase, is best revealed







in his RIBA annual discourse in London, 1957, when he received the gold medal:

"Once I tried to make a standardization of staircases. Probably that is one of the oldest of the standardizations. Of course, we design new staircase steps every day in connection with all our houses, but a standardized step depends on the height of the buildings and on all kinds of things. You cannot use the same step over all, because it has to be elastic enough to be put in everywhere. We tried to solve the matter by an elastic system in which the steps were going in each other, but in such a way that the proportion of the horizontal to the vertical plane always kept the formula which we have had since the time of the Renaissance, I think, from Giotto, and even earlier from the Periclean time. For the movement of a human being there is a special rhythmical form. You can't make a step how you like: it must be a special proportion. I spoke about that in the University of Gothenburg. The Rector said, 'Stop for a while, I want to go to the library.' He went downstairs to the library and came out with a book -- Dante's Divine Comedy. He opened it at the page where it says that the worst thing in the Inferno is that the stairs had wrong proportions. "

Aalto is also a master in the various modes of architectural influence. A recent issue of ZODIAC Magazine had an article, "Alvar Aalto and Light," which explained how the long dark winters and bright summers with midnight sun have made the Finnish architects, especially Aalto, aware of light problems. Aalto began to master light with his Viipuri Library design, and continued with his control of natural and artificial light in his prize winning Aalborg Art Museum. He has also mastered the hieratic effect, whereby the visitor is tantalizingly led by hints and suggestions in the right direction. His movements, rather than forced, are gently guided architecturally. The floor plan of the Essen Opera House reveals this simple and casual traffic flow.

Since Finland is limited in materials for building, and the more economical materials are wood, brick, native stone, and Finnish copper, Aalto has become a master of the use of brick. He has used it almost exclusively in his projects from his experimental house at Murratsalo to the custom-designed tiles on the elevations of the Seinajoki Town Hall now under construction.

As all Finns, he designs with the natural environment and contour in mind and makes his designs co-exist with the lumps of granite



that continually re-appear unexpectedly on building sites, and take into major consideration the severe cold of arctic winters similar to those in Alaska, Newfoundland, Greenland, or Iceland. Each of his designs has an emphasis on simple beauty and planning, but each seems to be different in its painstaking detail and the plastic approach to space. But Aalto is a practical designer whether he be working on a mortuary ramp for the Vuoksenniska Church or providing an indoor backdrop for the green vines which the Finn's enjoy so much.

In the early 30's, Aalto began to design his own furniture and lamps, manufactured by ARTEK, with which he furnishes his own architecture. He frequently uses curves and undulating lines, and bent plywood proves a good media. He uses a similar design approach when working with glassware.

Just as Aalto ranks first in architecture in Finland, his name appears first in the encyclopaedia and dictionary. Strangely enough, the definition of the word, "aalto," is wave, and Aalto's designs are associated with the undulating wave or the gently broken line. The lines of his work often appear in counterpoint or juxtaposition. As in the Helsinki House of Culture, the business portion of the complex seems more routine and has a box-like repetition, but suddenly it continues into an undulating curve that terminates abruptly. Nature, in its patterns, doesn't repeat rigidly either, but allows for playsome deviations or variations on a theme, hence the casual and unexpected, such as: A-A-A-a-A-A-B-A- A---a.

Professor Aalto has only a small office, by American standards, and is ably assisted by his second wife, also an architect, a secretary-business manager, and an office secretary. There are usually about nine experienced Finnish architects who are "project managers," if such nomenclature may be used in Finland, plus five young students or recent graduates working full or part time, and four assistants, usually from countries where Aalto might have projects.

The steady cavalcade of visitors from all over the world makes it difficult to give attention to architectural details and VIP's at the same time. As a compromise, he has opened an architectural museum to provide visitors with information on Aalto's projects around Finland. When possible, Professor or Madame Aalto tries to meet with these busloads of professors and students from Russia, Spain or Sweden, but notification must be given some days in advance of arrival.

For many years little was known about the distant nation of Finland.



While the Iron Curtain was closed, only a few persons were en-route through Helsinki to the U. S. S. R. In consequence, Aalto always had fun when traveling trying to cope with the strange questions placed to him. He especially enjoyed "taking the mickey" out of pompous people. He would tell how his staff skied across the lake ice from Otaniemi, of the all night sessions on black coffee and smoked reindeer meat, and how everyone would take a sauna after designing for 48 hours straight, come back refreshed, and have a dinner in celebration. Some of the tales of Aalto are somewhat legendary, but the heroes of the Kalevala were of his type. For example, Aalto exclaims that paper was created by God for architects to design on, and not for letters; this is one way to explain slowness in his answering letters. Aalto draws his strength from the pine forests which are filled with their own music and magic, from the thousands of lakes, and from the aura of the midnight sun suspended for hours as a golden disc. Each Finn is awed by the severity and ruthlessness of nature in the northland, and of the necessity of conforming to its laws. This develops humility and self-discipline not found in the warmer climes. Thus the search for the organic through natural materials in a country in which austerity is more frequent than luxury tends toward an architecture of "humanity" with Aalto as its master.

Aalto's output is not great by American standards, but surely this is not a measure of great Architecture. Many American firms with large volumes of projects do the most mediocre work. Eliel Saarinen was a great architect because of one building, the Helsinki Terminal, conceived in 1906 as a link between the East and the West. Louis I. Kahn, born opposite Finland on the island of Ostel, is great because of his Richards Research Building - one building alone. As Wright once remarked, **the touch of the master can be found equally in the design of a chicken coop as an opera house.** Aalto prefers opera houses.

Aalto is remarkable in that his clients are satisfied. The users of his designs praise his works. Far from assuming a great-man pose, i. e. , dictating a design from on high, he is first and foremost concerned with the human being that must occupy a hospital bed or climb stairs on crutches. He is concerned with door pulls that are awkward and scratch the hands, or the simple play of light, sound, or smell, the vista down a hall, or the landscape beyond.

Aalto's work falls into several classifications. As with most architects, he does many designs that remain in the project stage, but most have been constructed. Most of his projects are of a cultural or civic nature, but he has a keen interest in group housing.





#### HOUSING:

Paimio; Sunila; Kaatua; N. P. I. ; Rovaniemi; Broomen.

#### INDUSTRY:

Sunila Mill; Paper Factory, Inkeroinen; Sawmill, Varkaus; Nitrogen Works, Oulu; Port Facilities, Gothenbury.

#### TOWN PLANS:

Sunila; Saynatsalo; Rovaniemi; Avesta; Oulu; Imatra; Naynashaimin.

#### OPERA HOUSES:

Helsinki House of Culture; Wolfsburg House of Culture; Theater and Concert Hall, Oulu; Essen Opera House; Leverkusen Competition; Helsinki Opera House.

#### ART MUSEUMS:

Aalborg Museum; Bagdad Museum; Leverkusen; Keski-Suomen; Helsinki.

#### LIBRARIES:

Viipuri; National Pension Institute; Leverkusen; Seinajoki.

#### CHURCHES:

Seinajoki; Imatra; Wolfsburg; Lyngby Chapel.

#### TOWN HALLS:

Saynatsalo; Kiruna; Seinajoki.

#### BUSINESS BUILDINGS:

Agricultural Co-op, Turku; Engineers' Club; Rautatalo, Helsinki; Enso-Gutzeit, Helsinki; Stockman's Annex, Helsinki.

#### UNIVERSITIES:

Baker Dormitory, Massachusetts Institute of Technology; Sports Hall, Vienna; Sports Hall, Otaniemi; Technical Institute Master Plan, Otaniemi; Teacher's College, Jyväskylä; University Master Plan, Oulu.



## EXHIBITION PAVILION:

Tampere; Paris Exposition; New York World's Fair; Hedemora;  
Venice Biennale.

Breaking these down into their respective periods:

Early "first notice" projects:

1928-30    TURUN SANOMAT, Turku

A ferro-concrete newsprint plant, characterized by  
Narrow bands of windows, mushroom ceilings, and  
tapered columns in basement.

1929-30    PAIMO SANATORIUM (\*)

The competition prize that catapulted young Aalto to  
world-wide recognition.

1927-34    VIIPURI LIBRARY

His first use extensively of circular light wells in  
the library and undulating ceiling in the community  
auditorium.

Pre-War "Scandinavian Modern":

1937-39    SUNILA FACTORY AND HOUSING

A modern industrial community designed for the  
peninsula adjacent to Kotka.

1938       VILLA MAIREA RESIDENCE (\*)

One of his few houses designed for his patroness,  
Mairea Gullichson, which has many elements intro-  
duced that Aalto develops in later projects.

1939       FINNISH PAVILION, New York World's Fair

The project that attracted attention in the United States  
and led to his invitation to M. I. T. during the war.

American Period and Post-War Planning:

1947       BAKER DORMITORY, Massachusetts Institute of Technology

His only project in the United States.





- 1949 OTANIEMI PLAN  
Competition prize layout for university town.
- 1947 REGIONAL PLAN AND TOWN CENTER PLAN, Imatra (\*)  
His most significant, realized, planned group.
- 1949 OULU TOWN PLAN  
A bold plan for redevelopment (unrealized).

Post-War in Finland, Multi-Unit, Long-Term:

- 1950-51 SAYNATSALO VILLAGE HALL (see analysis)
- 1952-56 NATIONAL PENSION INSTITUTE, Headquarters and Housing  
A large, massive business structure in Helsinki.
- 1952-57 TEACHER'S COLLEGE, Jyvaskyla (\*)  
Prize winning campus plan for many types of buildings, added to existing campus.
- 1952-58 SEINAJOKI CHURCH, Centrum Grouping  
The first of a series of church designs.

Recovery and boom, mostly Helsinki projects:

- 1952-54 RAUTATALO (Iron House), Helsinki  
First large office building for downtown part of city.
- 1955 AALTO'S OWN STUDIO OFFICE, Munkkiniemi  
Office is moved from Engineers' Club to near own suburban residence.
- 1955-58 HOUSE OF CULTURE, Helsinki  
Business offices and auditorium.
- 1956-58 CHURCH OF THREE CROSSES, Vuoksenniska, Imatra (\*)  
One center in the planned town of Imatra



Overseas Projects, Invitational or Competition:

- 1956-59    MAISON CARREE, Bazoches  
Near Paris, France, done for the art dealer, Louis Carre.
- 1958       BAGDAD ART MUSEUM, postal and telegraph office.  
Unrealized because of revolution.
- 1958       CULTURAL CENTER, Wolfsburg, Germany (\*)
- 1958       APARTMENTS, Bremen, Germany  
Like a casual hand of cards.
- 1958       TOWN HALL, Kiruna, Sweden  
Solution "Aurora Borealis," (unrealized).
- 1958       AALBORG ART MUSEUM, Denmark  
Prize winning solution
- 1959       OPERA HOUSE, Essen, Germany  
Prize winning solution
- 1959       CHURCH SEMINARY, Wolfsburg, Germany  
A grouping of buildings.

Recent efforts in Finland:

- 1958       ROVANIEMI HOUSING  
Being built slowly in units.
- 1960-       OTANIEMI TECHNICAL INSTITUTE  
Main Buildings
- 1959-61    JYVASKYLA KESKI-SUOMEN MUSEUM  
Historical Museum with exhibition and lecture halls  
opposite campus.

Housing for National Pension Institute  
Munkkiniemi









1959-61 ENSO-GUTZEIT OFFICE BUILDING, Helsinki

A new theme in business building design, reflecting  
"white city of the north."

1960-61 CITY PLAN FOR HELSINKI CENTRUM, (known as Keskus)

A master plan added to "the most blueprinted city in the world." A crowning achievement which may require ten to fifteen years to realize.

\* PAIMIO TUBERCULOSIS SANATORIUM (1929-30)

Paimio, near Turku, Finland, cited by Gideon as one of three institutional buildings linked to the rise of city architecture, is the competition prize that catapulted the young Aalto, then in practice with Erick Bryggman, into international fame. Located on a hilltop, the 290-patient main building is the center of a self-contained community in the midst of a forest. The six-story wings, topped with a solarium, are a composition of cantilevered balconies. There is a purity of concrete form linked to such small but integral details as having three walls of each room being "hard" and one "soft", with the walls painted of a soft indefinite tone and the ceiling a bit darker so as to be easier on the eyes of the bed-ridden patient, and the balance effected between natural and artificial lights in each patient area. The hand basin, for example, receives falling water at a slight angle to avoid undue splashing, and the door knobs are moulded to fit the hand more easily. The reinforced concrete outside walls are 4" thick with a 4" thick facing of brick and a 1-1/2" interior facing of compressed cork. The whole hospital is conceived for the physical needs of the patient and for the psychological effect of the environment. It is designed as an integral whole, to which each part is a necessary element. Even pine trees are planted in tubs along the balconies to soften the harsh lines. The Finn is appreciative of beauty in such minor details.

\* VILLA MAIREA (1938-39) Country residence for Mrs. Gullichson.

In the NEW YORK HERALD TRIBUNE, June 30, 1960, Professor Aalto is quoted as saying, "I tell you, it is easier to build a grand opera or a city center than to build a personal house." Indeed, the only other private residences he has designed are his own residence

Classroom Building and Track - Teachers' College  
Jyvaskyla







in Munkkiniemi and that of Monsieur Carre at Bazoches, France, near Paris. Villa Mairea has the same milestone position in the works of Aalto as perhaps the Savoy House to Le Corbusier, the Barcelona Pavilion to Mies, or the Winslow House to Frank Lloyd Wright. He has been able to experiment with many innovations which were more fully developed in other projects, such as the undulating wall, design and manufacture of individual lamps and furniture, the subtle juxtaposition of materials, the "organic" identification with natural environment and site, and a spatial organization that gives a slight hint of what lies beyond. The overall effect is not a garish display of wealth, but a simple and rusticated country house for a wealthy woman of exceedingly cultivated taste, in which value materials are easily mixed with the most commonplace in a casually deceptive manner. This house is located near Noormarku, Finland.

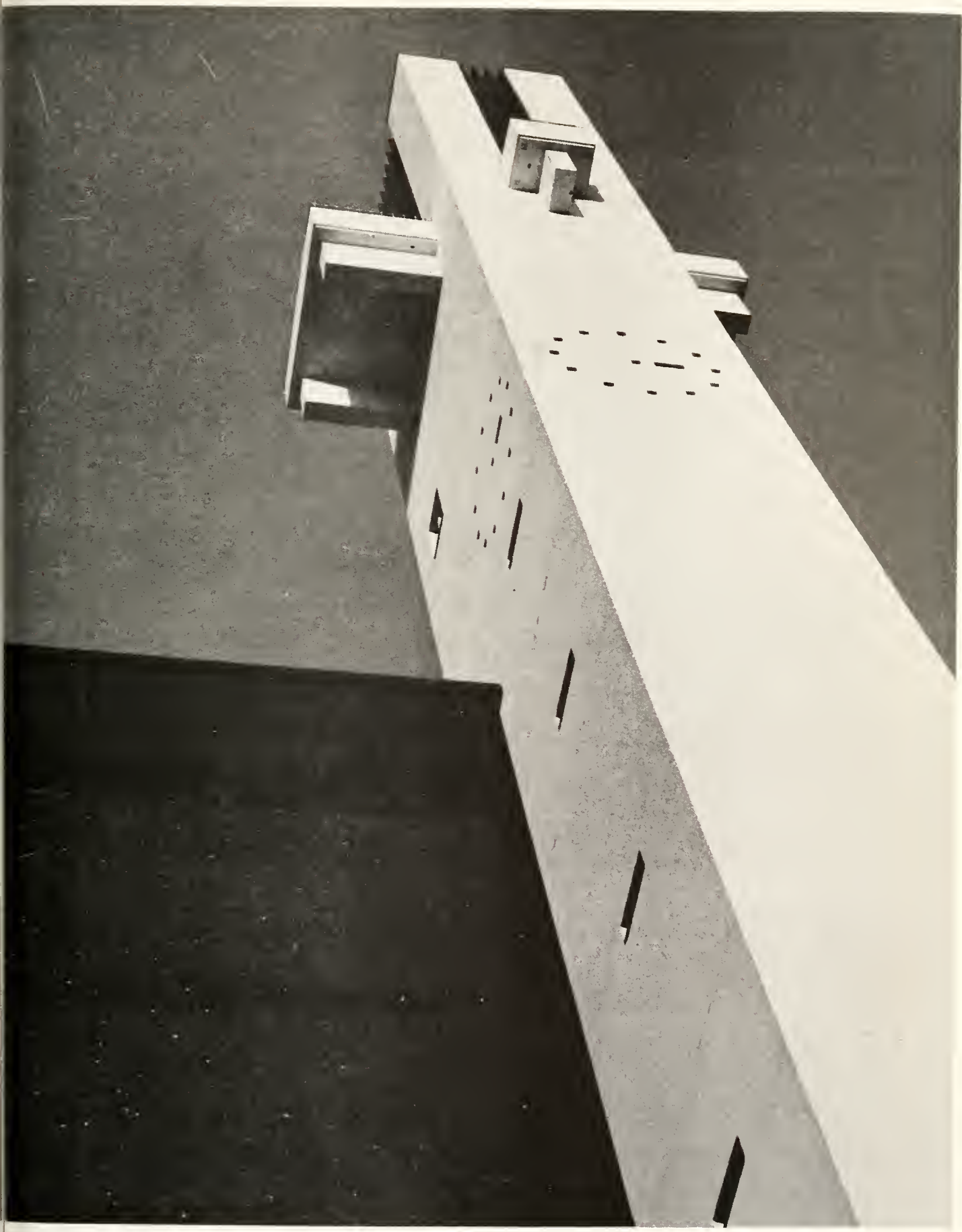
\* BAKER DORMITORY (1947-48) Massachusetts Institute of Technology

This was the only design commission accepted by Aalto during the war years when he served as Professor of Experimental Architecture at M.I.T., in Cambridge, Massachusetts. Indicative of this milestone is that Aalto places the elevation drawing of the Baker Dorm on the wall beside his work desk. Aalto returned after this design to Finland and for several years his best efforts went into planning and reconstruction during a "lean period." Large architectural commissions were not to follow for some years. The Baker Dormitory stands in contrast to the other massive stone, classic monuments of the university like a "brutalistic snake," but its concept is simply to utilize to the maximum the view of the Charles River. The library and lounge areas are reminiscent of the Viipuri Library in the spatial arrangement, the stairs, and the overhead light wells. The stark and somewhat brutal placing of the main staircase, enclosed but placed outside the main face of the wall, was an innovation of this post-war period. It has been said that the detailing and craftsmanship on this building suffered from the relatively high labor costs in machine-directed America in contrast to his other projects in Finland, Scandinavia, or Europe.

\* JYVASKYLA TEACHER'S COLLEGE (1952-57) Master Plan and Design

As in most of Aalto's key commissions, this was a competition award for Jyvaskyla, the city in south central Finland where Aalto studied as







a boy. It consists of approximately ten buildings, or units of buildings, linked together. This complex consists of everything from residence dormitories to the auditorium. This is a "university-type" college not often found in Finland, and is U-shaped in campus plan. The placing of the various buildings is in a subtle relationship, often on a slight angle to each other, emphasizing the hieratic effects as one walks up and down, over, and around, in an approach carefully studied for its casualness and simplicity. The amphitheater consists of stone blocks, rough hewn, arranged in arcs, facing the high wall of solid brick of the main building (a wall broken at several points, creating interesting shadow lines vertically, and of carefully selected brick colors that vary the tone). The over-all effect is of a university acropolis, higher than the city, overlooking the valley and the long lake that ends nearby. Adjacent to the university grounds is the Aalto-designed Keski-Suomen Museo which was recently opened.

\* IMATRA CHURCH (1956-58)

"The Church of the Three Crosses" in the community of Vuoksen-niska is one of several groupings in the planned city of "Imatra" on the border of the U. S. S. R. Aalto planned Imatra as an area that would grow together in a complex over the years. One community was invited to develop the principal building and "center." This church would have other purposes than worship services on Sunday. This church was the first by Aalto after he completed the Seinajoki Church, and it is the intermediate step before his Wolfsburg, Germany, Church Center which is now under construction. This Imatra Church is often cited as his finest ecclesiastical design, as Saynatsalo, and it is only fitting that this masterpiece be located in a Finnish village in the backwoods rather than in the hubbub of a larger city. Instead of designing assembly areas adjacent to the sanctuary, the main body can be divided into three independent areas, each with its own natural and artificial lighting and outside entrances. Only the choir section, with room for 250 persons, is used permanently as a sanctuary. On important occasions, nearly 1,000 persons can be accommodated by opening the sliding walls. Among the significant details to be noted are the slender bell tower that is as straight as the surrounding pine trees, the manner in which the mortuary ramp into the basement is shown on the elevation, the contrast to relatively window-less east elevation with the large double-sash windows on the west, the custom design of fixtures, and lastly, acoustical design. Acoustical trials with light rays were attempted before the final undulating ceiling pattern was adopted.



Terrace and Balcony - Keski-Suomen Museo  
Jyvaskyla Central Finland Museum







\* WOLFSBURG CULTURAL CENTER (1959) Wolfsburg, Germany

Aalto's growing prestige has been the cause of several recent commissions in Germany, including this "foldhaus" in the "Volkswagen City." Now under construction, only a few drawings and model photographs have been released, but upon completion much publicity will appear. It occupies a position alongside the central square of the town, and its dominant characteristic is the fan-shaped arrangement on the second floor containing five lecture halls of the "people's high school." The library features light wells and a custom skylight appears over a common room. Much of the structure is based on a repetitive module, but then at the appropriate point, the line becomes broken and turns into this remarkable fan outline. The facade will be of marble and glass; a large model recently appeared at the exhibition of Finnish architecture in Stockholm.

\* HELSINKI CITY CENTER (1960-61) "Keskus"

This long range plan for the Centrum takes us ten to fifteen years into the future and links to the past city plans of Engel, Saarinen, and Krakstrom for the "most blueprinted city in the world." The complex problems of rail and auto traffic, parking, government office space, urban renewal, cultural facilities, city de-centralization are solved in the Keskus, finished by Aalto in March and presented to the Finnish government and to the City of Helsinki. Photographs and drawings appear in the August, 1961, CASA BELLA. Helsinki Center, based upon the Railway Terminal, Sokos, Parliament Building, and the post office, will be for business and culture, leaving the old city center on the waterfront untouched. Helsinki-North will be a suburban commercial area in Pasila, 3 kilometres to the north. The Keskus unites the presently separated areas of Kallio and Toolo, east and west, and the Olympic Stadium sports area, railway terminal, and business district, north and south. The anchor of the plan is the Mannerheim Monument and a large triple-deck plaza called "the central place" that cantilevers over the lake and conceals shopping and automobile parking areas. Aalto, the architect, will probably design only the opera house, post office annex, and one business building.

Entrance Canopy and Undulating Facade  
Helsinki House of Culture







From a plane flying from Helsinki to Jyvaskyla, one can see the view of the 100-mile long Lake Paijanne, and at the lake's end, in the sweep of an eye, the city of Aalto's boyhood, the Teacher's College on the hilltop, and not far away, the village of Saynatsalo at water's edge, and Aalto's summer home on the island.

In a visit to Saynatsalo Town Hall, one can see "the touch of a Master in the forest." It is unfortunate that architectural magazines have never done justice thus far to this project, perhaps because it is so far from Helsinki, though the Neuenschwander book devoted many pages to photographs, details, and plans. Seldom does one building seem to personify the life, aspirations, and talents of the master architect as much as this village civic center, the largest of six buildings Aalto proposed in his master plan for the area which is yet to be realized.

As it stands alone, it has beauty. Once when a neon sign was erected that blocked the view, it was rumored that Aalto and friends staged a raiding party by night from nearby Murratsalo that destroyed the offending bit of commercialism.

As in the Church of Imatra, Aalto has done his best work of its type in a small village in which he has become involved in the life and habits of the simple people who will use his design. Aalto has spent many vacations in sunny Italy, and come back inspired by the hill piazzas of the small Italian towns. Saynatsalo is the first project in which he has used a raised mound as part of his design, thereby putting the courtyard on the "main" level, and relegating the business shops to the lower ground level where the bus stops. This design shows mastery of wood and stone, infinite care afforded to the smallest interior detail, and the over all integration of the design, within and without, to its environment.

Aalto is quoted in TIME Magazine, October 5, 1959, "I wanted to make it a town center, a building that would gather in people, so I put the garden inside, and then the inside is no longer neutral. I lifted the building up to make a vertical difference between the traffic in the street and the people meeting inside. The street is full of the gases from automobiles. We lift up the human being and put him in a better world." How many wealthy American towns of 3,000 possess such a civic center with such careful planning and design?





When first approaching the Town Hall through the pines, one is vaguely aware that this is a multi-level building of some complexity. There is obviously a row of commercial shops on the first level, owing to glass display windows, but curiosity is aroused as to the second floor of brick wall, punctuated by a continuous but varying fenestration covered with vertical strips or blinds. Above and behind looms a curious box-like tower with a sloped roof. What is it? Walking past the shops and around the corner, this shape appears as a high brick wall, topped with a band of windows, and terminating on one side as a jagged line, owing to a succession of cantilevered walls. (See illustration.) This indicates there is something rather unique going on inside. Next is a suggestion of the formal staircase, inviting the viewer to walk up. At the top is a pleasant garden courtyard. The first door is to the library and reading rooms over the shopping area. On the right is an entrance to a U-shaped passageway encompassing the garden and fountain. There are walls of glass on the left and city offices on the right. As one enters the major passageway, there is a passage leading up and around to the large city council chamber, but it is isolated from the chatter of the hallway visitors. The innersanctum has a high ceiling with dramatic and exuberant wood trusses flaring out as though intended to be the center of attention, but in reality are structurally integral to the building. At the opposite side of the courtyard from the formal stairs is an informal terrace staircase going down, with growing grass held in place by form-work boards in a broken pattern not unlike contour terrace farming. Next to this is a brick and concrete staircase leading to the private apartment of the caretaker. Once back on the ground level and looking up at this staircase, a totally different vista appears than from the formal staircase.

In contrast to the excitement of the cantilevered council chamber on the other elevation, the opposite side of the Town Hall complex is modest, but the wall is recessed outward slightly at two different points, thereby reading as three distinct units. When the viewer walks behind the structure, he is aware of the window placement and the curious effect created by the recessing brick work which appears every few feet (always 1/2 brick wide, 1/2 brick deep, but the termination point varies in an undulating line). This effect softens the rigidity of the over-all form. The brick surface is of varied brick, both in color and in placement. It was tested personally by the architect at his experimental house nearby. The play of shadows from the forest adds to the excitement of the surface.

Many visitors can not afford the two hours necessary to understand the wholeness of the design, and are surprised to find in the council chambers a Leger painting to counter-balance a large map of the community on the wall, and this painting in turn is placed next to a





carefully louvred wood-blind window which provides the necessary natural light to accentuate the bright colors in the painting -- a touch of French avant garde in backwoods Finland. Cylindrical lamps are suspended from the high ceiling to provide the artificial light necessary during the long and dark winter months.

In Finland there is no money to be wasted on affectation or absurd architectural postures, but the low cost of labor, the availability of wood, and the abundance of hand-craftsmen with a pride in their skill make it possible to have such custom details. This little center is loved by the citizens who use it, and perhaps that is the highest salutation to the architect. It is also applauded by the public at large as well as the architectural critics.

Entrance Elevation from Bus Stop  
Saynatsalo Village Hall



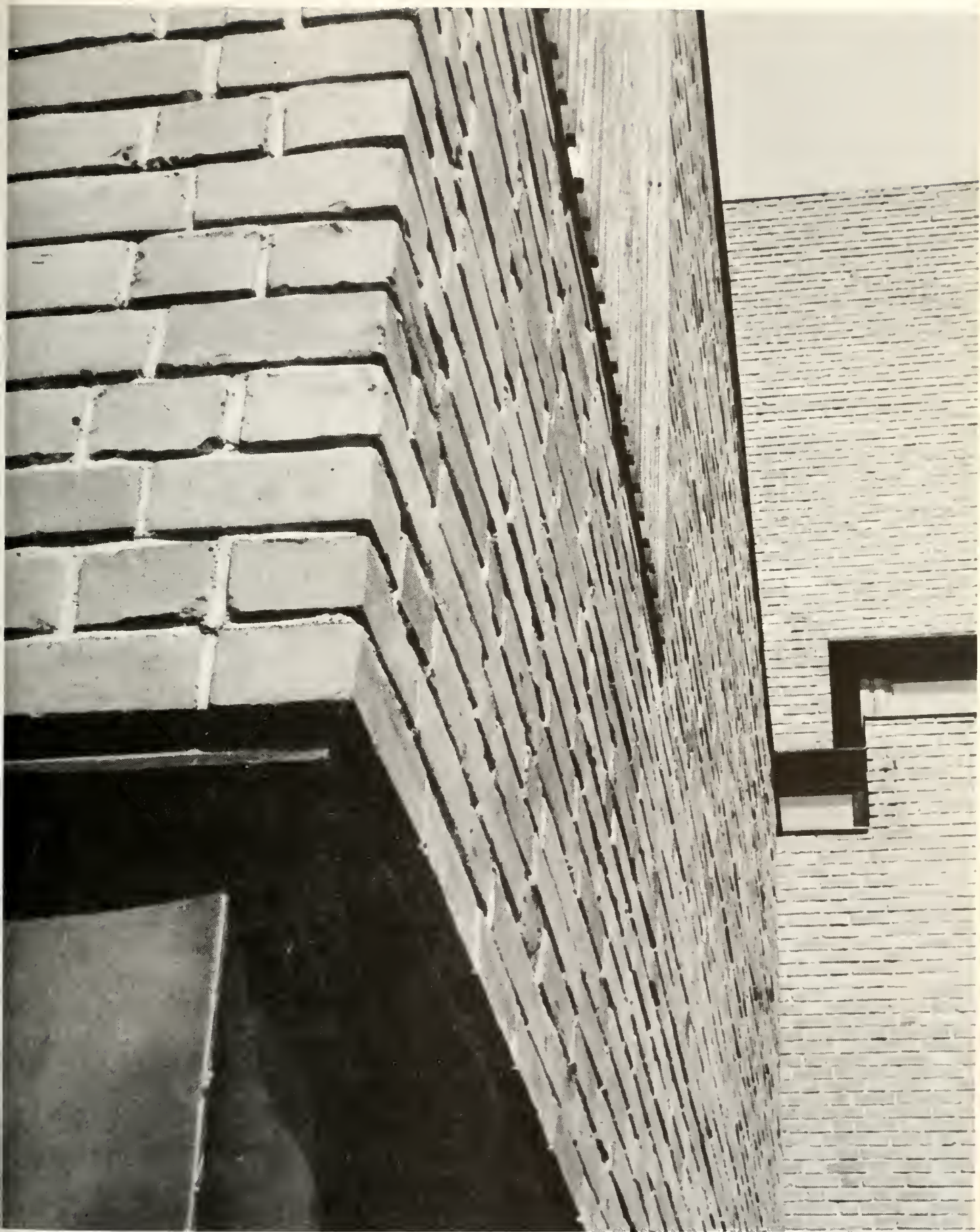
Stairs to Upper Court  
Saynatsalo Village Hall





Brickwork and Windows  
Saynatsalo Village Hall





The Shopping Area  
Saynatsalo Village Hall







A Stairway Detail  
Saynatsalo Village Hall

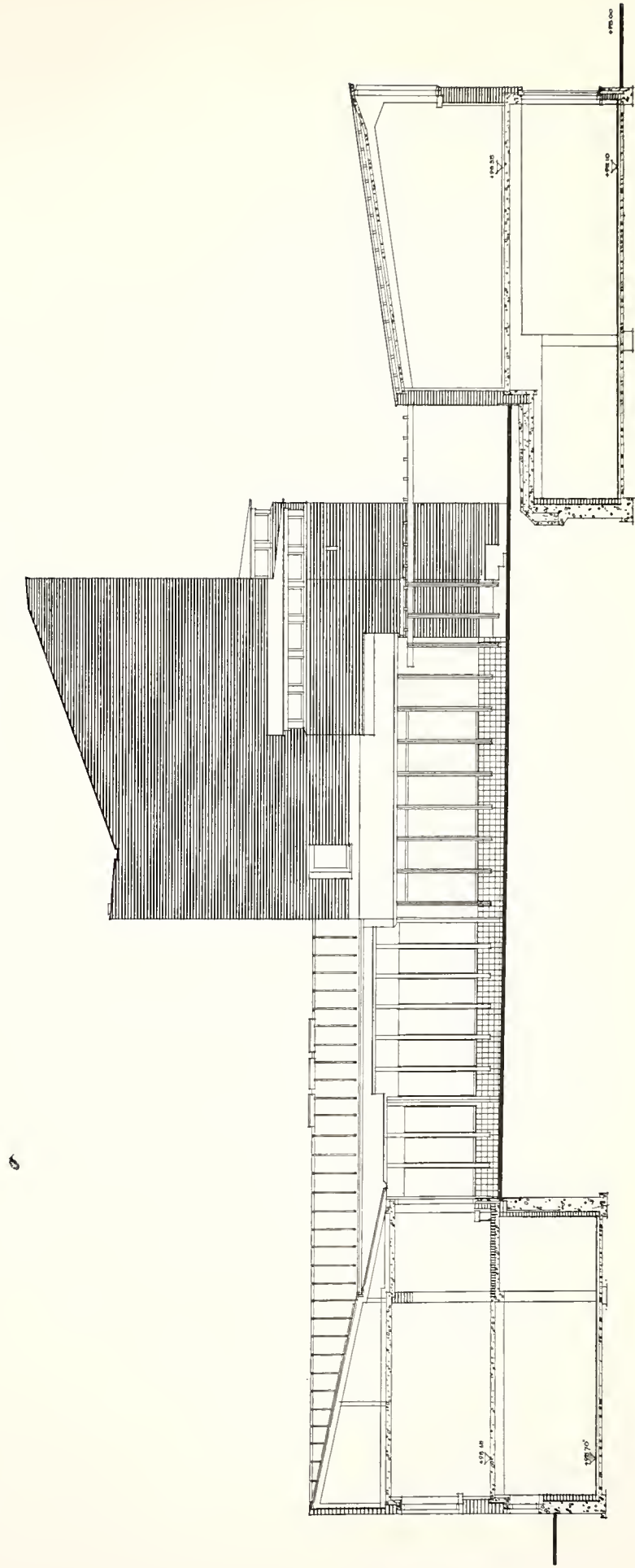




Querschnitt durch Hof und Bibliothek · 1:200

Coupe sur la cour et la bibliothèque

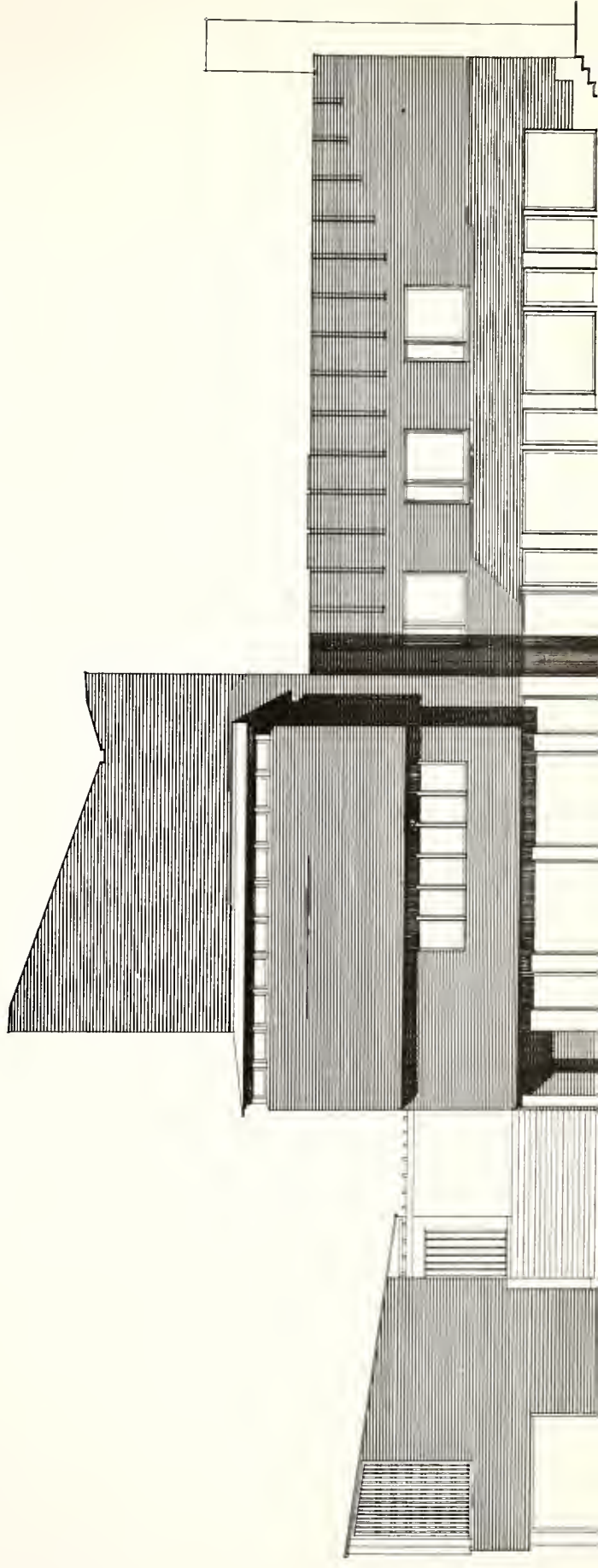
Section of library and courtyard







Ostfassade mit Rathaus-Turm · 1:200  
Façade est avec tour de l'Hôtel de ville  
East façade





## INLAND'S ARCHITECTURAL FUTURE

In Finland no architect goes without work simply because he is "too good." Competitions are held for practically every important church or public project in every city. There is always city planning work being done. The young architect is very busy during this period of suburban expansion in Helsinki and general high level of economy. The lean post-war period of reparations payments and slow recovery are over. In Finland now, it is "what you can do," not "who you know" that counts.

After Aalto, there are perhaps thirty Finnish architects of younger years capable of outstanding design ability. They do well at home and in international competition abroad. Most of these architects have small offices with three or four students or recent graduates as helpers. Such studios have an international flavor. Many foreigners studying architecture at the Institute of Technology work in these offices. One can find a multitude of languages, and occasionally an Ethiopian, Turk, Japanese, or South American who has come this great distance.

VILJO REVEL is known for his Palace Hotel in Helsinki, and other pilotis-supported structures in Finland. He and his associates enter many competitions.

RIEMA PIETILA is looked to by some as the promise of the future, owing to his youth and dedication, and his research in morphology. He won the Tampere Cathedral Prize and designed the Brussels Fair Pavilion.

VELI PAATELA worked for Aalto on the Baker Dormitory at M. I. T. and later for Saarinen. He has done mostly clinics and hospitals.

OLAV HAMMARSTROM is practicing in America. He has a one man office which produces quality church designs and, as Paatela, he worked both for Aalto and Saarinen, as well as doing planning in Finland between the Winter War and World War II.

KAIJA AND HEIKKI SIREN have been winning many Finnish design competitions.

KEIJO PETAJA is known for his Lautasari Church which was done in collaboration with designer Ilmari Tapiovaara.

AARNE ERVI and JORMA JARVI do schools, commercial and housing projects. Jarve is especially known for his Helsinki Post Office.



KAARLO LEPPANEN and MATTI ITKONEN are two of Aalto's assistants who have won competitions.

PAULI SALOMAA does glass boxes similar to those of S. O. M. , i. e. , his Autotalo and Kaivokatu 10.

JONAS CEDERCRUETA and HELGE RAILO did the Central Hospital of Jyvaskyla.

The SUOMALAINEN brothers in Helsinki won a church competition that marks them for future greatness, and AARNO RUSSOVUOI has the church prize at Hyvinkaa, and many other competition awards for future designs.

One should also speak of Tiovo Paatela, Olli Kivinen, Prof. Aulis Blomstedt, Markus Tavio, Einari Terasvirta, Tarja Toivianinen, Osmo Sipari, Esko Makel, Esko Korhonen, Eero Eerikainen, Hilding Ekelund, Jaako Kaikkonen, who have been influenced by Aalto and the pioneering heritage. When the present demand for housing and planning is satisfied, then they will turn their eyes on the world and design abroad. The rest of the world will probably only know them through magazines or journals, travels, books, exhibitions, or discussions with other architects. If they do not become well known, it will be because Finland is a distant country from the United States and the Finns do not like to publicize themselves.

Finland is a mecca for good architecture and a fountainhead for Scandinavia. Aalto resembles a "singer" from KALEVALA - LAND OF HEROES, the Finnish folk myth. It speaks of coming generations:

Let us clap our hands together,  
Let us interlock our fingers,  
Let us sing a cheerful measure,  
Let us use our best endeavors,  
While our dear ones hearken to us,  
And our loved ones are instructed,  
While the young are standing round us,  
Of the rising generation.

. . .

But let this be as it may be,  
I have shown the way to singers  
Showed the way, and broke the tree-tops,  
Cut the branches, shown the pathway,  
This way therefore leads the pathway,  
Here the path lies newly opened,  
Widely open for the singers,  
And for greater ballad singers,  
For the young, who now are growing,  
For the rising generation.





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