Alvar Aalto, furniture and glass : [exhibition] the Museum of Modern Art, New York

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ALVAR AALTO: FURNITURE AND GLASS THE MUSEUM OF MODERN ART, NEW YORK

Alvar Aalto on the roof terrace
of his house in Helsinki. c. 1936

Installation of The Museum of Modern Art's 1938 exhibition "Alvar Aalto: Architecture and Furniture."

On March 15, 1938, The Museum of Modern Art opened an exhibition devoted to the buildings and furniture designed by the Finnish architect Alvar Aalto. It is significant that his furniture shared equal billing with his architecture, for from the start of his career Aalto had devoted much of his time and thought to developing innovative designs for furniture that complemented his buildings, giving their interiors consistency and point. Although their initial purpose may have been to fill a need within a specific building, many of these designs were conceived in terms of standardized parts and serial production, giving them potentially a much broader application. Aalto had no use for what he called "unusable status furniture, factory baroque."[1] Instead, he stated that "we should work for simple, good, undecorated things, but things that are in harmony with the human being."[2] It was this approach to design and the freshness and originality with which he gave tangible form to his ideas that recommended him to The Museum of Modern Art.

The 1938 exhibition, the first in any museum to be devoted to Aalto, served to bring to the attention of a broad American audience a growing body of work that had up until then been known primarily to a small group of architects and designers. Since that time the Museum has shown a continuing interest in collecting and displaying examples of Aalto's designs. Today there are twenty pieces of his furniture in the Design Collection, along with examples of his glass and lighting fixtures.

The present exhibition is the fourth in a series focusing on the designs for furnishings of major twentieth-century architect/designers, the others having been devoted to Charles Eames, Ludwig Mies van der Rohe, and Marcel Breuer.

J. Stewart Johnson
Curator of Design
The Museum of Modern Art, New York

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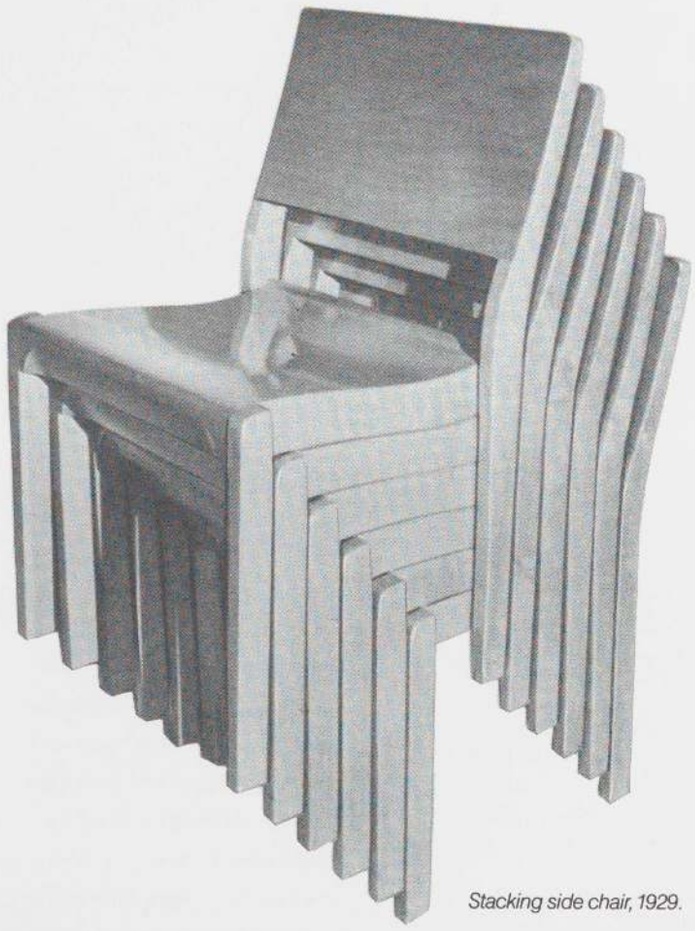
Alvar Aalto (1898–1976) came of age as Finland was experiencing the first exhilaration of independence, and during his lifetime was provided with an unusual number of opportunities to design buildings and furnishings by a country intent on creating a fresh image for itself. While still a young man he gained international recognition, largely on the strength of several brilliantly innovative buildings and the furniture he designed for them. In time he designed important buildings in other countries: Germany, Denmark, Italy, and the U.S.A. His work was so appealing in its warmth, humanity, and unpretentious common sense that it was admired everywhere. His furniture fit in anywhere. And yet his designs have about them a palpably Finnish quality. Not only do they strongly suggest the time from which they come, but to a remarkable degree they suggest the particular character and values of his native land.

Finland, which had been ruled for centuries by Sweden and then by Russia, did not achieve independence until 1917. The long foreign domination had important ramifications for all aspects of its life and culture. Small, remote, heavily wooded, and sparsely populated, the country did not seem of much economic consequence to its rulers and hence they spent little on it. There was never enough money to engender a trade in luxury goods. Furniture was simple, utilitarian. So was architecture. Most buildings were constructed of wood, and so they burned easily.

Thus when the Finns began to govern their own country, they were largely unencumbered by a reverence for past styles and conventions. They did, however, have a strong folk tradition on which to draw and a deep-rooted sensitivity to natural materials; and it was these, in combination with their freedom from formal inhibitions, that nurtured the development of a new aesthetic among their designers.

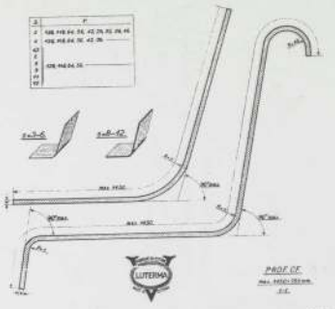
As a young man, Aalto was attracted to the so-called "Nordic classicism" that was in fashion throughout Scandinavia during the 1920s. His early designs for buildings and furniture and his decorative schemes for interiors reflect his infatuation with this spare, attenuated, neoclassical style. By 1927, however, he had begun to work toward a more personal style. In that year, working with Otto Korhonen, the technical manager of a furniture factory near Turku to whom he would entrust the execution of all of his subsequent designs, he created a side chair that presaged the concerns that would occupy him in designing furniture throughout his career. Constructed of solid birch members framing a thin plywood seat and back, it was economical to produce. It was unornamented. And it was designed so that it could be readily stacked and stored out of the way when not in use. Its only complication (aside from the slightly curved contours of the seat and back) is the deeply chamfered front rail, which reduces the mass of the frame, making it seem less ponderous than it is.



Stacking side chair, 1929.

The stacking side chair was soon followed by an armchair, the back legs of which thrust forward above the seat, meeting a horizontal, U-shaped crest rail that serves both as support for the plywood back and as arms. Although this chair is as solid as its predecessor, the line of its low back and pierced arms lends it some of the same elegance found in both earlier Chinese furniture and the very sophisticated armchairs Hans Wegner would design in the 1950s in Denmark. However, in both the oriental originals and Wegner's adaptations of them, considerable attention was paid to nuances of modeling, whereas Aalto was content to leave his wooden members essentially rectangular in section, neither turning nor tapering them.

The last and most forward-looking of these early chairs was another armchair, also stackable and also combining a solid wood frame with a plywood seat. Here, however, seat and back are continuous and unframed, bent out of a single sheet of thin plywood that seems to ride free within the arms. Whereas the front legs of the earlier chair were vertical, both the front and back legs of this chair are sharply canted. The effect is to replace the somewhat stolid quality of the other pieces with a new sprightliness.

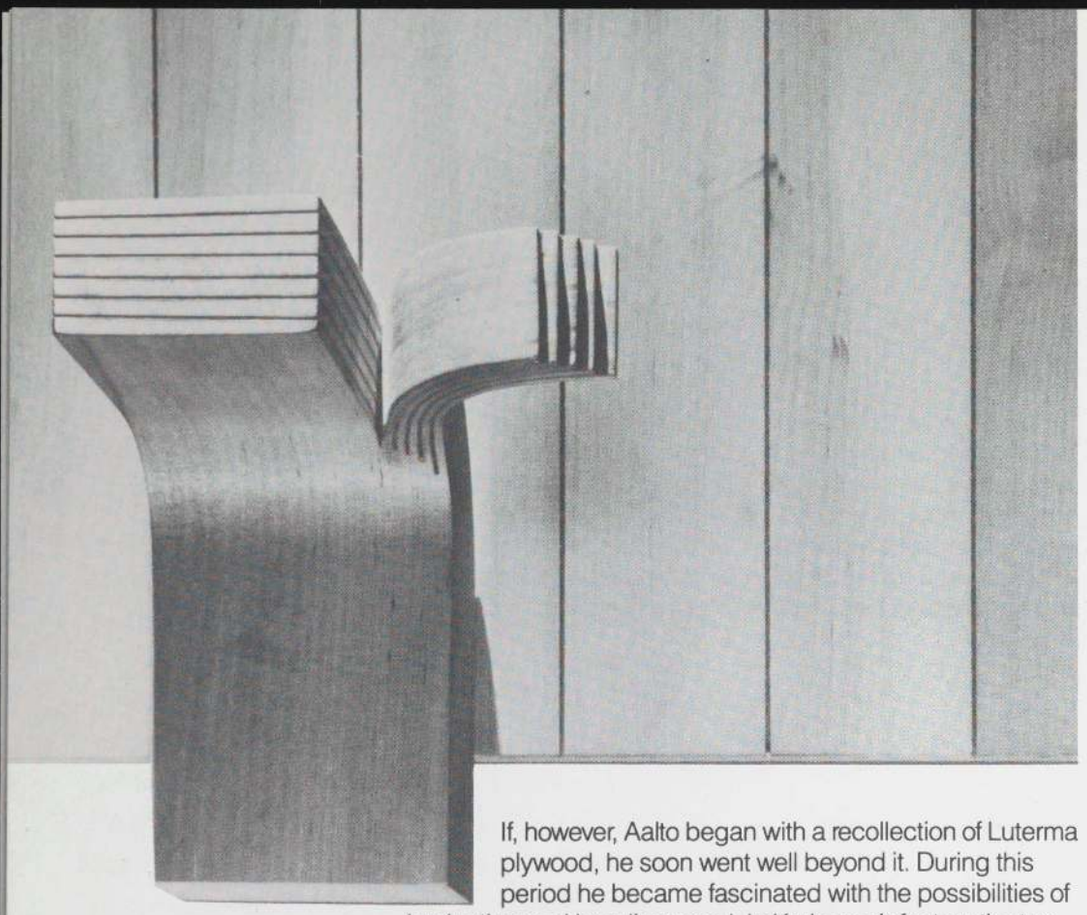


Page of the Luther catalog, Tallinn, showing molded plywood seat profile manufactured between 1911 and 1931.

The thin plywood seat unit that gives this chair its lightness was not as revolutionary as it may have seemed at the time. The A.M. Luther company in Tallinn, Estonia, under the trade-name "Luterma," had been turning out seats with a similar profile since the end of the nineteenth century, primarily for use on American and English tramcar and railway-station benches. Aalto had visited the Luther factory soon after his graduation.[3]

Stacking armchair, 1929.

Stacking armchair used in the Paimio Sanatorium, 1931–32.

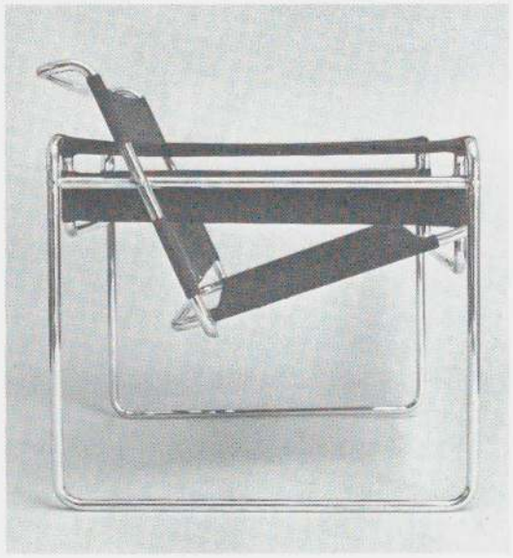


Block of wood, experimentally sawn into at the top and bent in two directions, mounted as a relief sculpture, c. 1932

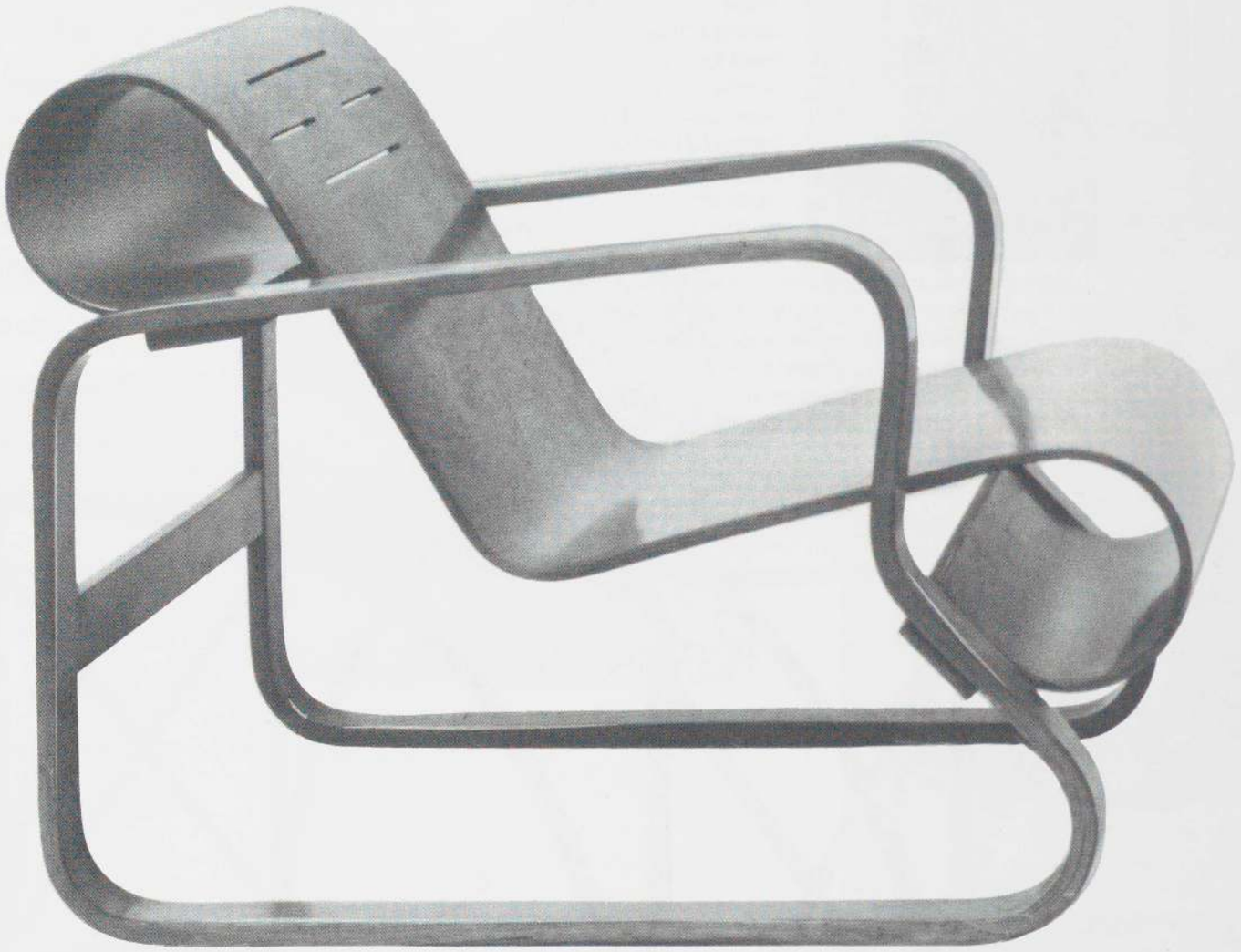
If, however, Aalto began with a recollection of Luterma plywood, he soon went well beyond it. During this period he became fascinated with the possibilities of laminating and bending wood. In Korhonen's factory the two men would experiment by cutting into blocks of birch, bonding layers of wood together, and trying to coax them into ever more eccentric forms. Many of the resultant shapes were handsome, and Aalto mounted them on wooden panels as reliefs. Some seem to have had no practical application, but others clearly anticipate his designs for furniture.

These investigations of the limits of bending plywood led Aalto to design a new seat that extended the conventional L-shape at both top and bottom into bold volutes. The unit could be attached to a chair frame at the extremities of these tight curves so they would act as springs, giving the seat a bounciness. Aalto also developed a new frame in which to suspend his spring seat, abandoning the conventional four legs he had relied on until now and substituting continuous ribbons of wood bent into approximate horizontal rectangles, the tops of which served as armrests, the bottoms as skids. The resulting low lounge chair, which came to be known as the "Paimio" chair, gained him wide acclaim as a designer of furniture. Although it was called "the first soft wooden chair," it was admired at least as much for its dynamic sculptural presence as for its comfort.

Both the Paimio chair and, to a lesser extent, the armchair that immediately preceded it give the impression of being seat units suspended within frames. Aalto may have borrowed this idea from Marcel Breuer. Although he never visited the Bauhaus, where Breuer had pioneered the use of light, bent tubular-steel furniture in 1925, Aalto was certainly aware of Breuer's furniture, and in fact ordered a consignment of it late in 1928; some pieces he used professionally and some he placed in his own apartment. In particular, the Paimio chair calls to mind Breuer's 1925 "Wassily" club chair, an example of which Aalto himself owned, since both use skids rather than legs. Aalto's design, however, is simpler, more consistent, and more economical than Breuer's. Breuer's frame requires six metal members and many separate bends to be made, and after it is assembled seven fabric slings have to be sewn to it as seat, back, and armrests. Aalto's chair needs only the two bent wooden side units, the seat, and three straight boards (seat rail and back rail, which support and are hidden by the seat, and a stabilizing back stretcher). Both chairs are striking; both have deservedly come to be considered classics of twentieth-century design. The Wassily chair may have been catalytic to Aalto's thinking, but it was no more than that. It is not the skid frame that gives the Paimio chair its powerful impact as much as the buoyant lines of its bent-plywood seat.



Marcel Breuer's "Wassily" club chair, designed 1925.



Paimio lounge chair,
1931–32.

The patients' wing of the Paimio Sanatorium, 1929–33.

The Paimio chair took its name from the tuberculosis sanatorium Aalto built at Paimio, near Turku, between 1929 and 1933. The building was a startling expression of modernism, a remarkably daring and assured achievement for a young architect who had only just abandoned neoclassicism. Photographs taken of it hard upon its completion were published internationally and for the outside world it quickly came to symbolize Finnish functionalism.

The commission for the Paimio Sanatorium provided Aalto with the means to design not only the hospital itself and doctors' housing, but also the entire range of furnishings for them. Paimio became a testing ground for Aalto's genius, the laboratory in which he could experiment with new forms and materials and in which he developed and refined many of his essential ideas.

Not all the furniture he designed for Paimio was in wood; much of it incorporated tubular steel. It was a material tremendously appealing to young designers trying to break with traditional stereotypes, and Aalto was no exception. Bent metal was quintessentially modern and must have seemed the perfect choice for Paimio. Aalto tried using it for everything from a monumental examination table—the complicated bracing of which might seem more suitable for a bridge than a table—to small stacking stools that foreshadow his later designs for all-wood stools. There were sidechairs and armchairs, which were designed to be stackable. There was a low armchair to which could be attached a padded and quilted cushion. Most of the chair designs had cantilevered bases not dissimilar to those of Breuer, Mies, and Mart Stam, and significantly, all had plywood seats. For even at the height of his flirtation with metal Aalto could not abandon wood. For him it was wood, not metal that was "the form-inspiring, deeply human material."[4]

Metal and plywood examination table designed for Paimio, 1931.

As he later put it:

"The tubular steel chair is surely rational from technical and constructive points of view: it is light, suitable for mass production, and so on. But steel and chromium surfaces are not satisfactory from the human point of view. Steel is too good a conductor of heat. The chromium surface gives too bright reflections of light, and even acoustically is not suitable for a room. The rational methods of creating this furniture style have been on the right track, but the result will be good only if rationalization is exercised in the selection of materials which are most suitable for human use."[5]

Stacking metal and plywood stools, 1931–32.

Stacking metal and plywood cantilevered side chairs, 1930.

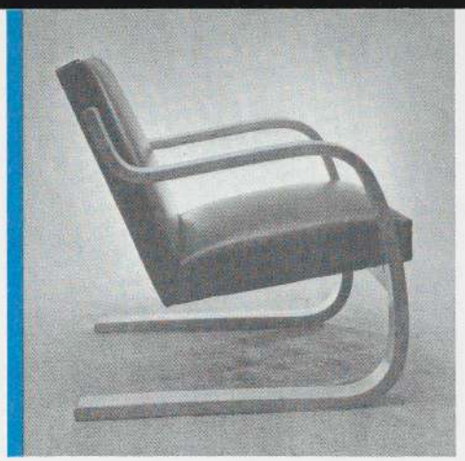
Stacking metal and plywood cantilevered armchair, 1931–32.

Throughout the time Aalto was experimenting with bent metal, he continued to design for wood. The tubular-steel base of his cantilevered side chair, for example, is paralleled by one in laminated wood—a design he obviously liked, as he made it in both full-scale and children's sizes and used the smaller chairs in his own children's nursery. It is a curiously unresolved design. The C-shaped skids seem heavy for the light plywood seat, and the curves where seat and base meet at the front do not quite coincide, leaving a disturbing small gap between them.

Aalto had far better luck when he extended the C-shape upward so that, rather than fitting it under the seat of a side chair, he could suspend the seat within two of the Cs, creating an armchair. The Cs did not need to be made any thicker, since they bore no more weight, and in fact because they are less compressed they appear to be much lighter in relation to the seat. This cantilevered armchair support was to be one of Aalto's most useful designs, and over the years he returned to it repeatedly, using it with bent-plywood seats, with seats that could be upholstered, and with others that could be covered with webbing or woven rattan. In one version a deep, upholstered lounge chair was set within much broadened C-supports. The most dramatic of all was a chaise longue with an extended cantilevered seat suspended within a cantilevered C-base.

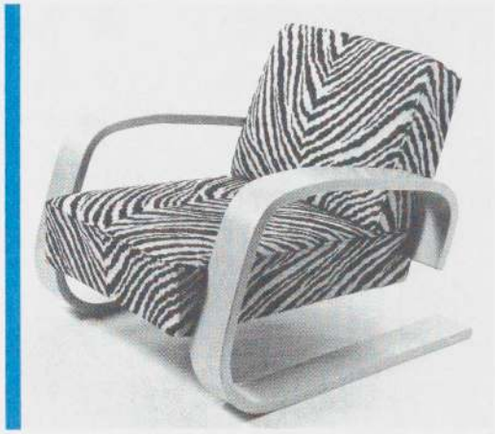
Stacking cantilevered side chair, laminated wood and plywood, 1931–32.

Cantilevered armchair, laminated wood and lacquered plywood, 1931–32.



Cantilevered armchair, laminated wood, padded and upholstered seat, 1932–33.

Cantilevered armchair, laminated wood with webbing, 1938–39.



Cantilevered lounge chair, laminated wood with sprung and upholstered seat and back, 1935–36.

Cantilevered chaise longue with leather webbing, 1936–37.

Interior of the lecture hall of the municipal library at Viipuri, in which L-leg stools and chairs were used. The undulating ceiling is made of oak strips. Over the years, Aalto's stools were produced with colored tops—blue, red, and yellow, as well as black, white, and natural wood.

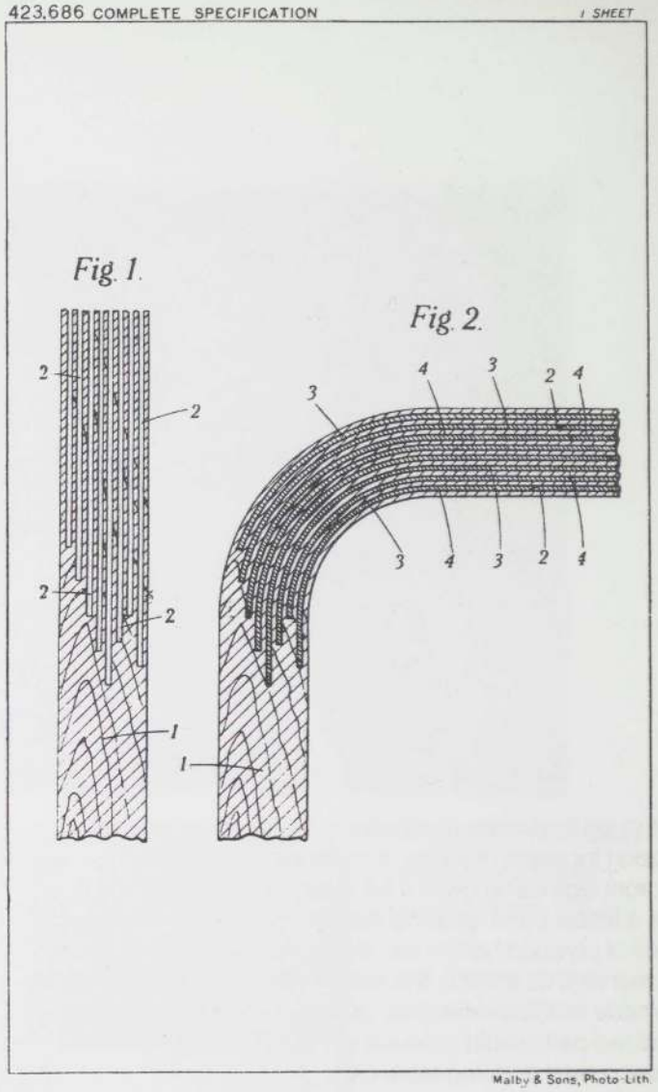
At the same time Aalto was developing his ideas for open bases, he found additional applications for closed, ribbon frames. He used the Paimio frame to support upholstered lounge chairs and devised lighter frames suitable for two-tiered tables and wheeled tea trolleys.

During this astonishingly fruitful period—roughly from 1929 to 1936—Aalto not only produced his landmark designs for the Paimio Sanatorium and its furnishings, but he also designed and completed another major building, the municipal library at Viipuri, at the eastern edge of Finland. There too he was entrusted with the job of supplying appropriate furnishings, and there too he met the challenge by creating one of his most seminal and characteristic designs. This was a radically new idea for a leg that effectively answered the age-old dilemma faced by furniture designers of how to join vertical legs to horizontal tops. His solution has the virtues of being structurally sound, visually pleasing, and economical. He felt it to be his single most important contribution to furniture design, and few today would disagree with him.

The problem of horizontal/vertical-connections has usually been solved in one of two ways. The more primitive solution has been to cut holes through the top, drive the legs in, and wedge or glue them tight so the resulting structure will not wobble. A more sophisticated solution is to join the legs to a frame and attach this frame to the underside of the top, usually with screws, glue, or dowels. This method of construction has the advantage of allowing the top surface to remain unmarked, but it has the disadvantage of requiring both extra steps and extra material.

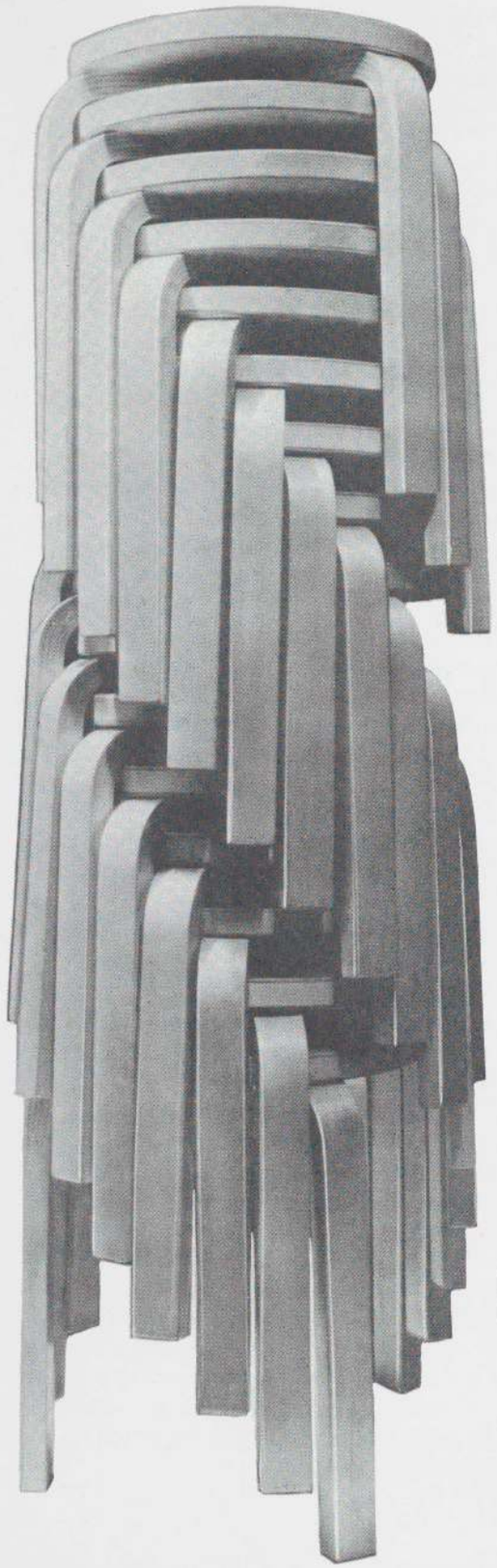
Aalto's leg could be fastened directly to the underside of the top, eliminating the need for any framework or additional support while leaving the top surface pristine. This was possible because his leg bent sharply from the vertical to the horizontal, providing sufficient horizontal surface to accommodate screws and to stabilize the structure. Additionally, and importantly, it provided a smooth visual transition from leg to top.

Aalto, with the help of Korhonen, had already achieved considerable success with laminating and bending. For this new leg, however, he chose to use solid wood. And here he faced a problem: a piece of wood thick enough to bear the loads that might be put on a table, chair, or stool would break before it could be bent. His ingenious solution was to back-saw into the top of the leg, making a series of short cuts parallel to the grain into which could be inserted thin "leaves" of wood dipped in casein glue. When the leg was put into a mold and bent under pressure, the sandwiched layers could easily slide against one another, the grain thus being coaxed, against its natural tendency, into following the desired curve.

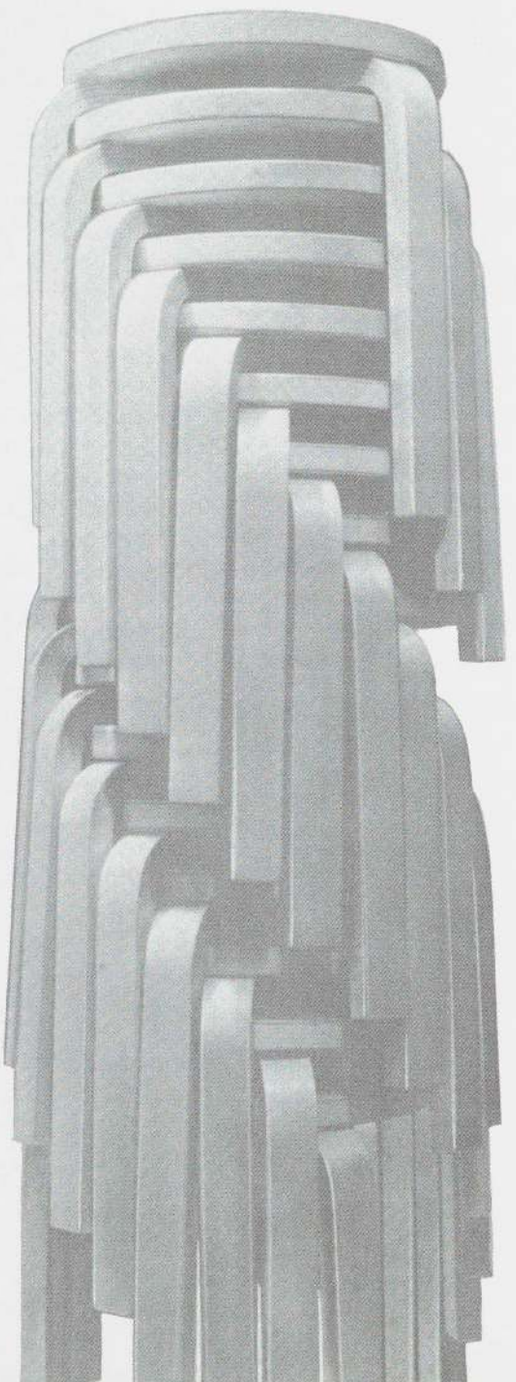


Drawing of L-leg for U.S. patent, filed November 8, 1934.

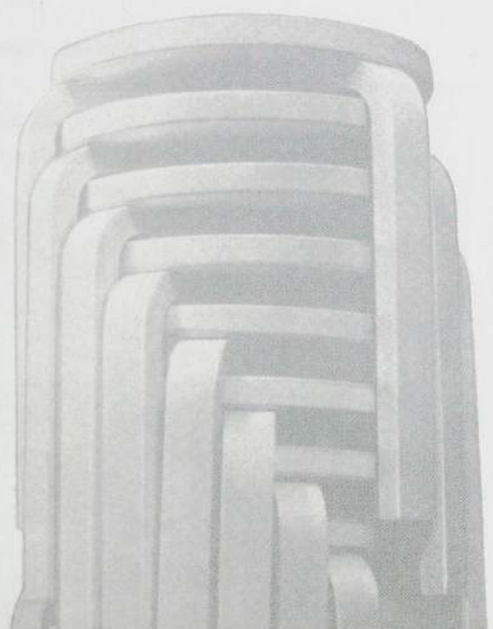
New York Chippendale tray-top tea table, c. 1760. The cabriole legs are fastened to the frame, to which the top is attached.



Stacked L-leg stools, 1932–33.



Aalto's leg had many applications. It worked equally well as a support for stools or tables. It could even be adapted to chairs, the front legs being given a full ninety-degree bend, the rear legs a lesser bend, allowing them to splay out. A U-shaped piece of plywood bent in two directions could be screwed to the rear legs as a back; and since both backs and legs could be made in different heights, various combinations of standardized parts could produce anything from a tall bar stool to a low-backed dressing-table chair.



The L-leg made possible the easiest and most economical assembly of furniture. None of the stretchers, frames, or wedges essential to guarantee stability for conventional furniture were necessary. Only legs, table tops, or seats—and for chairs, backs—were needed. This furniture, though simple and designed with an eye to efficiency both in production and use, was not monotonous. Aalto believed deeply in the need for standardization in furniture design, but not at the expense of variety.

Aalto returned to his design for L-shaped legs on several later occasions. About 1947, he designed a thinner leg, made to appear lighter still by pushing the outer layers up at the bend to produce an acute angle, leaving a crescent-shaped void within the knee itself. It was one of his less successful designs. The pierced knee is decorative but structurally weak, and in an effort to shore it up, he introduced a fillet of dark, contrasting wood to plug the hole. But though this strengthened the leg, it did not save the design. The general effect remained nervous, fussy. The stools with the wooden inserts were put into limited production but soon withdrawn; in all only about fifty were made.

Above: *Pierced knee frames with rattan and padded upholstered tops, 1946–47.*

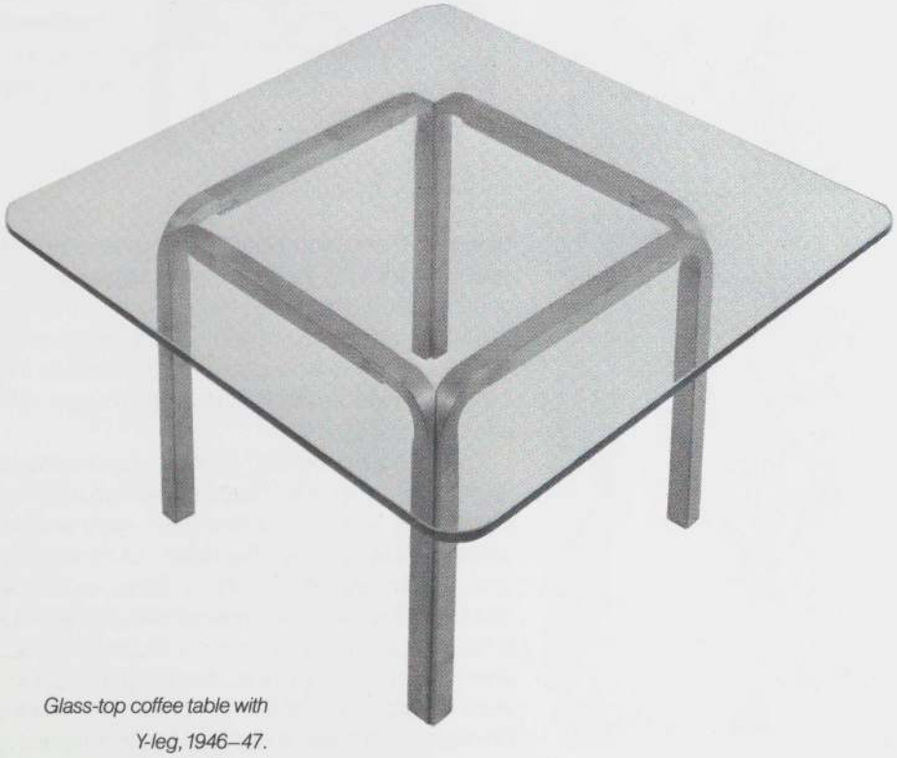
Left: *Cocktail cabinet with L-leg base, 1936–39.*

L-leg side chair, 1933–35.

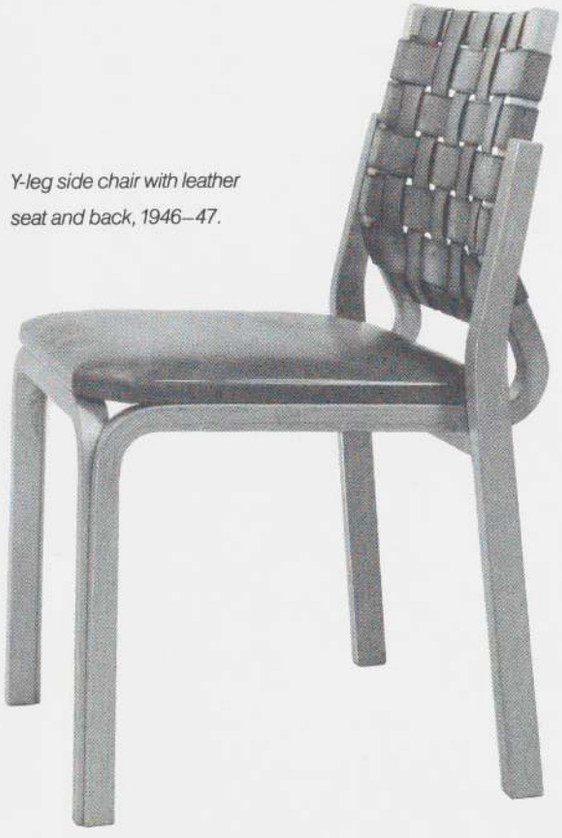
The pierced knee had another disadvantage: because of its angled profile it could have only limited applications. Aalto's basic L-leg, though it looked best under a circular top, could be used to support a wide variety of rectangular pieces as well—benches, desks, dining tables, cabinets, and chests. Still these forms posed an aesthetic problem for the designer. When placed at the corner of a rectangular top, the fact that it was one-directional became apparent. It could be faced forward or to the side or set diagonally; but whichever way it pointed, the transition from leg to top seemed arbitrary.

In an effort to overcome this awkwardness, Aalto began to work toward a fully rounded leg, one that need not be turned or carved but would fit convincingly under a corner. His first attempt at a corner leg, in 1947, was to split his L-leg and turn the two half-sections at right angles to each other. At the junction of the two arms of the Y at the knee, where in a traditional cabriole leg one would expect to find the greatest bulk of wood, there is nothing, only air; for Aalto has provided not the substance of a cabriole knee but merely its outline. The Y-leg is light, airy (literally), and witty. It is best appreciated when it is attached to a frame that is completely exposed, say under the glass top of a coffee table or extended beyond the tape of a woven seat. It is much less satisfactory when placed under a solid top; then the open V of space is capped and appears tight, crowded.

In 1954 Aalto returned a final time to the problem of adapting his L-leg to corner use, and this solution is one of the most sophisticated of all his designs. It is an outgrowth of the 1947 Y-leg; but where that had consisted of two half-sections of an L-leg set at right angles, he now cut his basic L-leg into five narrow wedge-shaped pieces and arranged them in a fan so that the knee made a full ninety-degree sweep. This new fan leg, instead of fitting *under* a table top, is fastened with dowels to the edge, so it is flush with it. This means, of course, that an arc must be cut out of the top, and also means that while the fan leg can be used convincingly with flat tops of any shape, it cannot be fitted to case pieces. It is not suitable for everything, but what it can do it does with assurance and great elegance.

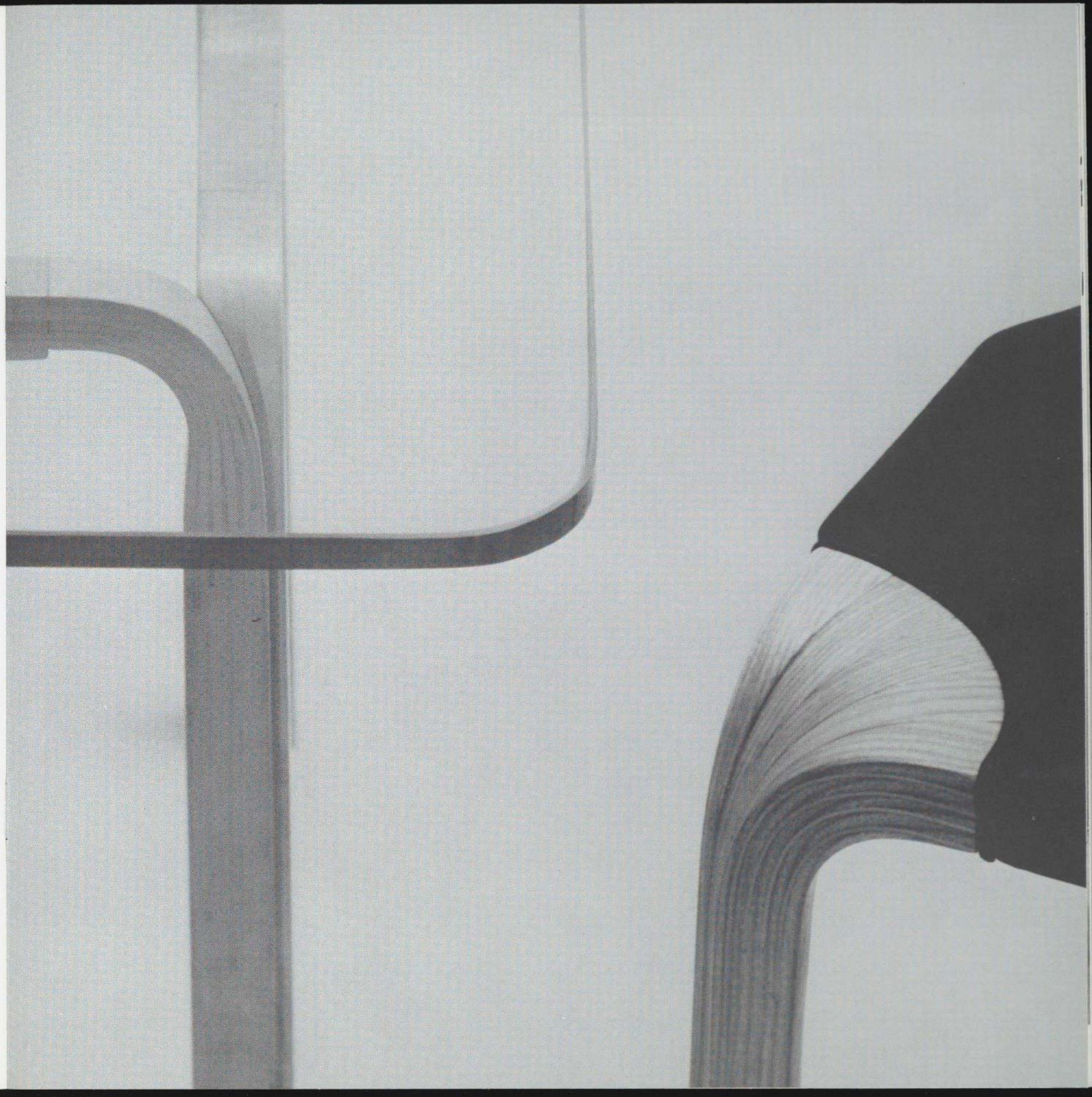


Glass-top coffee table with Y-leg, 1946–47.



Y-leg side chair with leather seat and back, 1946–47.

Facing page: *Y-leg and fan leg*



Aalto's fan leg is a bit like a cabriole leg turned inside out. The front surface is concave rather than convex, and the fluid transition from horizontal top to vertical leg has much of the strength and grace of gothic fan vaulting. In it we see the designer working the ultimate refinement on his basic idea.

Aalto continued to work productively as an architect and designer of furniture until his death in 1976. None of his later designs, however, have the impact of the objects and standardized parts he experimented with in the 1930s and in some cases—as with his Y- and fan legs—rethought in the 1940s and '50s. These are the products of a fresh, enquiring intelligence; of a deep sensitivity to his chosen material, wood; and of an abiding sympathy with and concern for the needs of the average person, whom he saw as his ultimate client.

At the same time Aalto was developing his ideas for furniture he was creating designs for objects made of glass, and, typically, his sensitivity to the unique qualities of this material led him to an entirely new range of forms. Glass is a liquid and when in its molten state can be molded into any shape desired. Aalto, responding to its fluidity, found it to be the perfect medium with which to explore free form.

He did not begin there, however. His earliest essays in glass design were for a group of stackable glasses and decanters that he intended for use in the Paimio Sanatorium. He entered these in a competition held in 1932 by the Karhula and Iittala glass factories, and although his designs did not win a prize, the Karhula factory did offer to produce them with modifications. When Aalto refused to make any changes the project was abandoned.

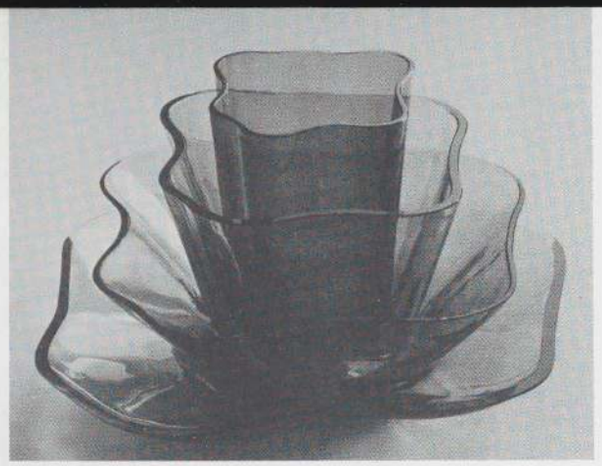
Aino, his wife and architectural collaborator, entered the same competition, and her design for a pitcher, glasses, sugar bowl and creamer, plates, and bowls, all to be made in pressed glass, won second prize and within a year's time had been put into production. All of these pieces were thick-walled and coarse in texture, a fact that was obscured by the strong pattern created by their deeply stepped sides. Her designs were so popular that they continued to be sold for over twenty years; however, during this time they were revised more than once in order to make them thinner and less brutal.

Alvar Aalto's turn came the following year, when his entry of a nest of five stacking glass vessels won second prize in an invitational competition sponsored by Oy Riihimäki. This suite of thin-walled, truncated cones came to be known as the "Flower of Riihimäki," and was equally effective whether assembled or when the several components were used separately. The Flower of Riihimäki was left completely undecorated, its beauty depending upon the elegance of its proportions. The design is suave and assured, but uncharacteristically cold.

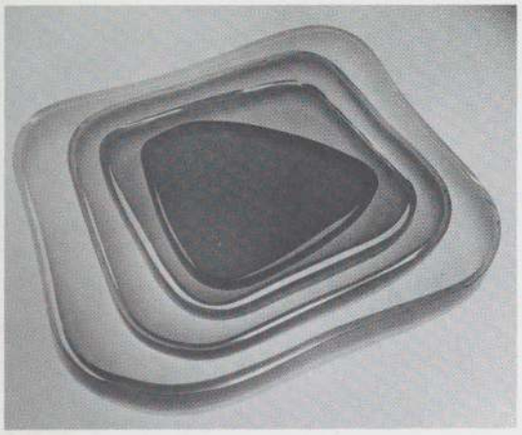
Facing page: *Fan vaulting, King's College Chapel, Cambridge.*
Facing page, insert: *Hexagonal stool with fan leg, covered in leather, 1954.*

Alvar Aalto's "Flower of Riihimäki," which won second prize in the 1933 Riihimäki glass-design competition. The original design also included a tumbler that sat in the center of the stack.

Above: *Aino Aalto's design for a pressed-glass pitcher and tumblers, which won second prize in the 1932 Karhula-Iittala glass competition. The handle of the production pitcher is altered.*

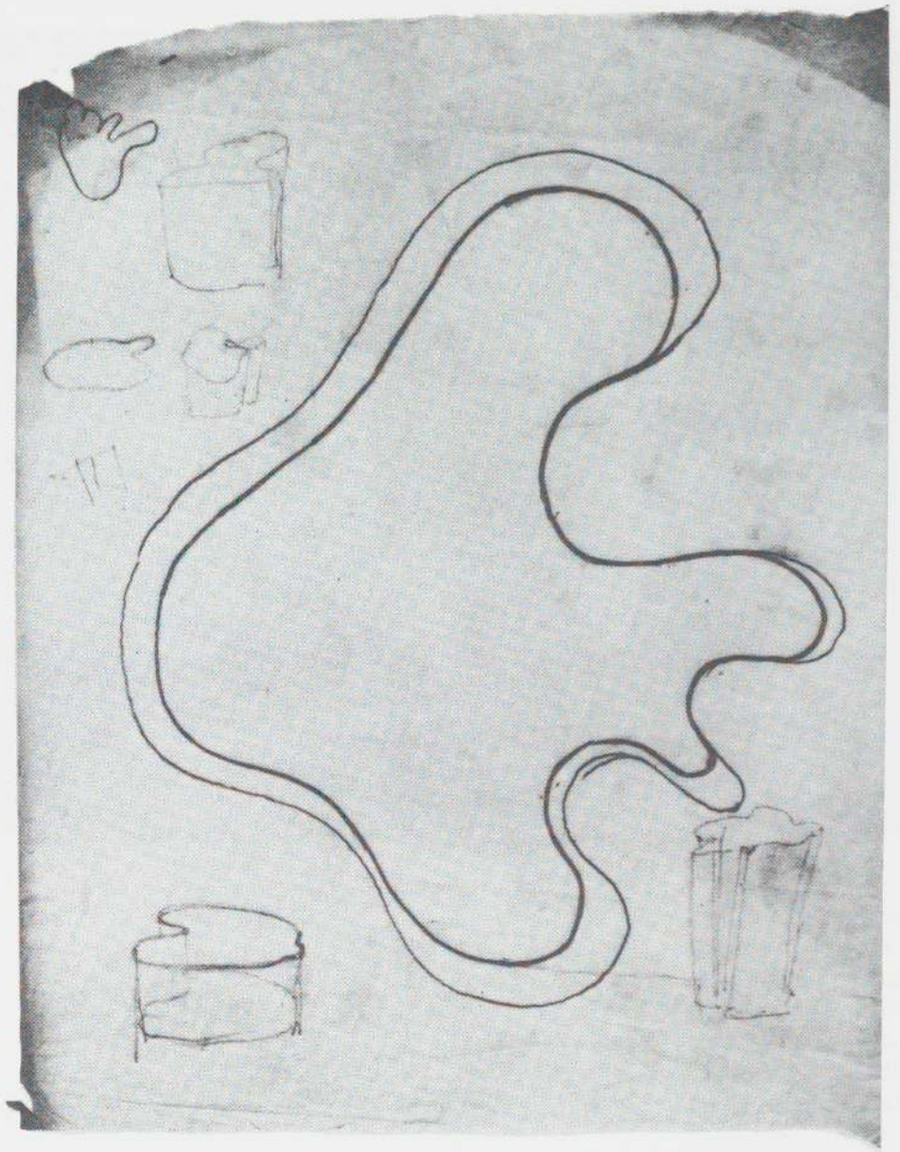


Stacking vessels known as "Aalto's Flower," 1936–39.



Stacking glass plates, 1936–39.

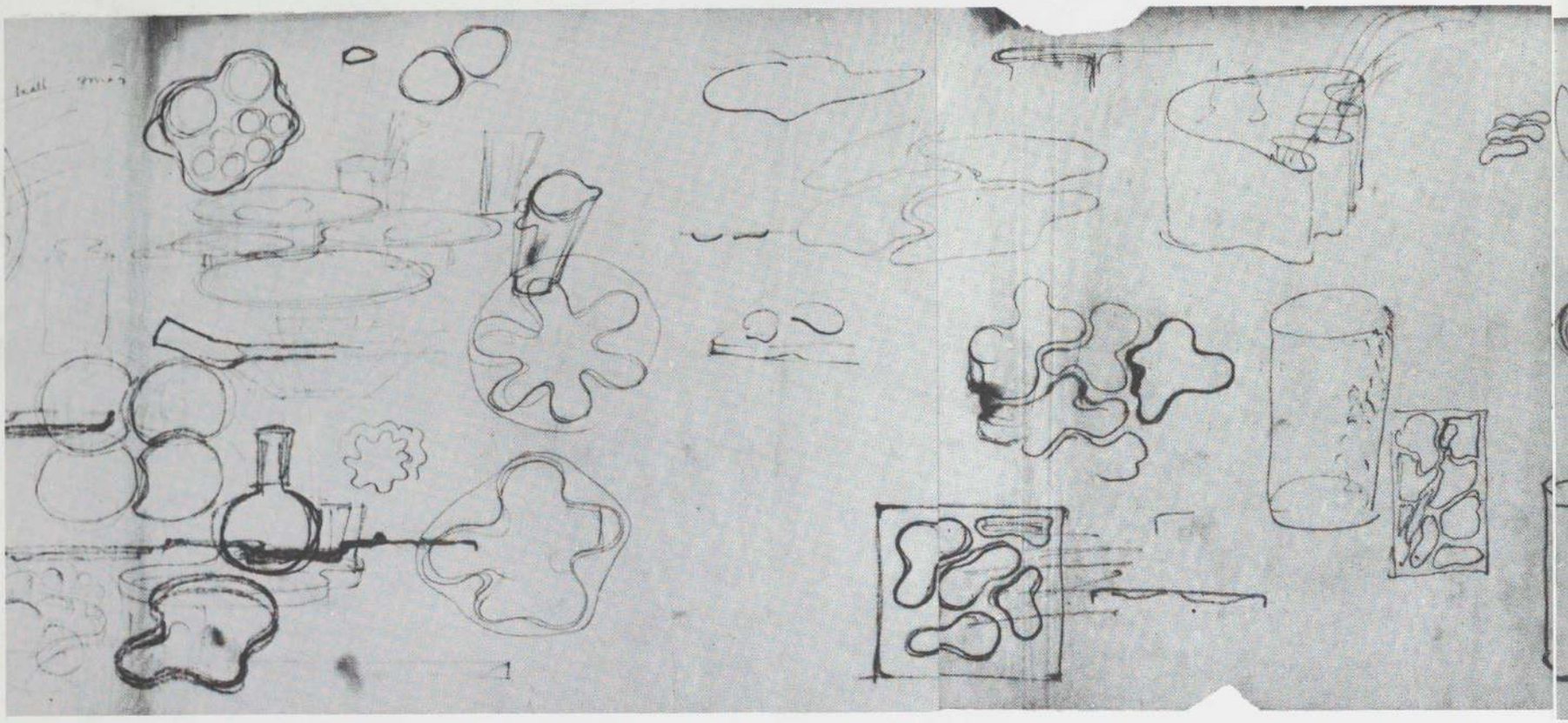
"Savoy" vase, 1936.



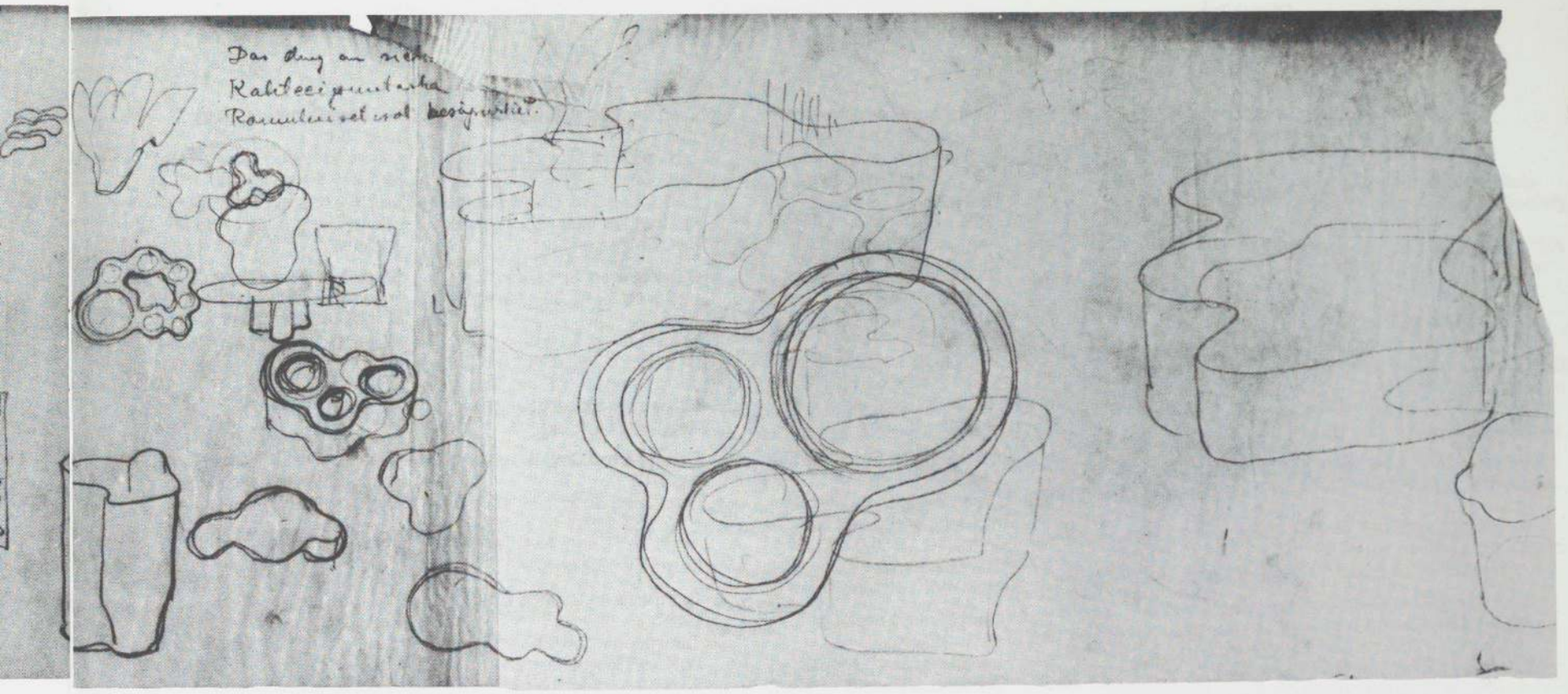
Rough sketches for free-form vases by Alvar Aalto.

Tall free-form vase as exhibited in the 1938 Aalto exhibition at The Museum of Modern Art.

Much more relevant to Aalto's general aesthetic, and in fact the most significant of his designs for glass, is the entry with which he took the first prize in a Karhula-littala competition announced in autumn 1936. He gave this the code name "Eskimoerindens Skinnbuxa," or Eskimo's leather pants, but the best-known vase from this series has come to be known generally as the "Savoy" vase, after the Helsinki restaurant for which he designed the interior and furnishings and in which he used it. Here Aalto allowed his imagination to carry him into flowing, amoebalike shapes reminiscent of those of Jean Arp. These soft, organic forms, which seem transient and accidental, were blown into wooden molds and could be made in a variety of sizes and heights. They could be used singly or in groups, but their eccentric forms were always unexpected.



Rough sketches of design ideas in glass by Alvar Aalto.



At the end of the 1930s Aalto designed another more regular shape based on circular depressions set into a piece of flat glass. These dented sections could be out apart as individual bowls or left in multiple units as snack trays. They could be stacked for easy storage. First made in glass, they were also produced in the 1940s and '50s in plastic. They are simple, practical, and handsome. They do not, however, have the spontaneity, the immediacy of Aalto's free-form vessels. These have a remarkably organic quality, typical of his best designs. For Aalto, although always aware of the practical value of standardization, was able in both his furniture and his glass to transcend the featureless mediocrity that characterizes so much mass-produced design. His work reveals an immense richness, an endless variety of organic form. In his view:

"The best standardization committee in the world is nature herself, but in nature standardization occurs mainly in connection with the smallest possible units, cells. The result is millions of flexible combinations in which one never encounters the stereotyped."[6]

Notes

1. Göran Schildt, ed., *Alvar Aalto: Sketches* (Cambridge, Mass.: The M.I.T. Press, 1978), p. 30.
2. Ibid., p. 148
3. Paul David Pearson, *Alvar Aalto and the International Style* (New York: Whitney Library of Design, 1978), p. 142.
4. Schildt, *Sketches,* p. 156.
5. Ibid., p. 77.
6. Cited in Andrei Gozak, *Alvar Aalto vs. the Modern Movement* (Helsinki: Kustantaja Rakennuskirja Oy, 1981), p. 78.

Checklist

Unless otherwise indicated, all pieces were designed by Alvar Aalto.

Furniture

*Alvar Aalto and Otto Korhonen

***4 Stacking Side Chairs.** 1929
Solid and laminated birch, 31½ x 19⅜ x 19⅜ in. (80.0 x 49.0 x 49.0 cm). Labeled: Finmar, Ltd. The Museum of Modern Art, New York, gift of Manfred Ludewig

Stacking Armchair. 1929
Solid and laminated birch, plywood, 27 x 20 x 21 in. (68.6 x 50.8 x 53.3 cm). Labeled: Finmar, Ltd. The Museum of Modern Art, New York, gift of Michael Whiteway

Stacking Armchair, designed for Paimio Sanatorium. 1931–32
Solid birch, molded plywood, lacquered, 30⅜ x 21 x 23 in. (77.2 x 53.5 x 58.5 cm). Stamped: New Furniture Incorporated. The Museum of Modern Art, New York, Museum purchase

"Paimio" Lounge Chair. 1931–32
Laminated birch, molded plywood, lacquered, 25½ x 24 x 34 in. (64.8 x 61.0 x 86.4 cm). The Museum of Modern Art, New York, Edgar Kaufmann, Jr., Fund

Examination Table, designed for Paimio Sanatorium. 1931
Tubular steel, molded plywood, 37 x 22 x 74¼ in. (94.0 x 55.9 x 188.5 cm). Alvar Aalto Museum, Jyväskylä

3 Stacking Stools, designed for Paimio Sanatorium. 1931–32
Tubular steel and plywood, painted, 17¼ x 16 x 15⅜ in. (43.8 x 40.6 x 39.1 cm). Alvar Aalto Museum, Jyväskylä

Cantilevered Stacking Armchair, designed for Paimio Sanatorium. 1931–32
Tubular steel, molded plywood, 29¼ x 25 x 24 in. (74.3 x 63.5 x 61.0 cm). Alvar Aalto Museum, Jyväskylä

Prototype of Cantilevered Stacking Armchair, designed for Paimio Sanatorium. 1930
Tubular steel, molded plywood, lacquered, 30¾ x 24 x 21½ in. (78.0 x 61.0 x 54.5 cm). Alvar Aalto Museum, Jyväskylä

Side Chair with Quilted Cushion. 1929–30
Tubular steel, molded plywood (quilted cushion made in 1984 from original photographs), 31¼ x 21¾ x 22½ in. (79.4 x 55.2 x 57.2 cm). Alvar Aalto Museum, Jyväskylä

Cantilevered Stacking Side Chair. 1930
Chrome-plated tubular steel, molded plywood, 31¼ x 21⅝ x 25 in. (79.4 x 55.0 x 63.5 cm). The Museum of Modern Art, New York, Lord and Taylor Fund

Cantilevered Side Chair. 1931–32
Laminated birch, molded plywood, 33¼ x 19 x 22½ in. (84.5 x 48.0 x 57.0 cm). The Museum of Modern Art, New York, purchase

Child's Cantilevered Side Chair. 1931–32
Laminated birch, molded plywood, 23¾ x 13⅝ x 16 in. (60.4 x 34.7 x 41.0 cm). The Museum of Modern Art, New York, gift of Artek-Pascoe, Inc.

Cantilevered Armchair, designed for Paimio Sanatorium. 1931–32
Laminated birch, molded plywood, lacquered, 25⅝ x 23¾ x 30¾ in. (65.0 x 60.4 x 39.5 cm). The Museum of Modern Art, New York, Architecture and Design Fund

Cantilevered Stacking Armchair, designed for Paimio Sanatorium. 1931–32
Laminated wood, molded plywood, lacquered, 29¾ x 23¾ x 28 in. (75.5 x 60.3 x 71.1 cm). Alvar Aalto Museum, Jyväskylä

Cantilevered Armchair. 1932–33
Laminated birch, upholstered, 29⅜ x 23½ x 28¹¹⁄₁₆ in. (74.6 x 59.8 x 72.8 cm). The Museum of Modern Art, New York, Marcel Breuer Design Fund

Cantilevered Armchair. First designed 1938–39, final version 1946–47
Laminated wood, rattan, 32¼ x 24 x 28⅞ in. (82.0 x 61.0 x 73.3 cm). Stamped: ICF, Inc. The Museum of Modern Art, New York, gift of ICF, Inc.

Cantilevered Chaise Lounge. 1936–37
Laminated wood, leather webbing, 25 x 25½ x 64 in. (63.5 x 64.8 x 162.6 cm). Alvar Aalto Museum, Jyväskylä

Cantilevered Lounge Chair. 1935–36
Laminated wood, upholstered, 26¾ x 29¾ x 32 in. (68.0 x 75.5 x 81.3 cm). The Museum of Finnish Architecture, Helsinki

Side Table, designed for Paimio Sanatorium. 1931–32
Laminated birch, molded plywood, lacquered, 23⅜ x 20⅛ x 23⅝ in. (59.4 x 51.1 x 60.0 cm). The Museum of Modern Art, New York, Architecture and Design Fund

Tea Trolley. 1935–36
Laminated birch, birch veneer, 22 x 35½ x 18 in. (56.0 x 90.2 x 45.7 cm). Stamped: Aalto Design. Labeled: Finmar, Ltd. The Museum of Modern Art, New York, Marshall Cogan Purchase Fund

Umbrella Stand. 1939
Laminated birch, plywood, 18¾ x 10⅝ x 9 in. (47.5 x 27.0 x 22.8 cm). Artek Oy Ab, Helsinki

3 Hanging Bookshelves. 1936
Laminated birch, plywood, linoleum, 11¾ x 35½ x 14⅛ in. (29.8 x 90.0 x 35.8 cm). Collection Elissa Aalto, Helsinki

Cocktail Cabinet (L-leg). 1936–39
Laminated wood, curly birch, 39½ x 37½ x 16 in. (100.3 x 95.2 x 40.6 cm). Stamped: Aalto Design. Alvar Aalto Museum, Jyväskylä

Stacking Stool (L-leg). 1932–33
Solid and laminated birch, 17¼ x 13¾ in. (43.8 x 35.0 cm). The Museum of Modern Art, New York, Phyllis B. Lambert Fund

Stack of Stools (L-leg). 1932–33
Solid and laminated wood, 17¼ x 13¾ in. (43.8 x 35.0 cm). Stamped: Alvar Aalto Artek Artek Oy Ab, Helsinki

Nest of 3 Tables (L-leg). 1936–39
Laminated birch and mahogany, 22⅜ x 26 x 13¹⁵⁄₁₆ in. (56.8 x 66.0 x 35.4 cm), 19¾ x 22¾ x 13⅞ in. (50.1 x 57.8 x 35.3 cm), 17 x 19¹¹⁄₁₆ x 13⅞ in. (43.2 x 50.0 x 35.3 cm). Stamped: Artek Aalto Design. Collection Maire Gullichsen, Noormarkku

Side Chair (L-leg). 1933–35
Solid and laminated birch, 31¾ x 15½ x 17³⁄₁₆ in. (78.0 x 39.4 x 43.5 cm). The Museum of Modern Art, New York, gift of Manfred Ludewig

Stool (Fan-leg). 1954
Laminated and solid ash, leather, 18¼ x 18¼ in. (46.3 x 46.3 cm). The Museum of Modern Art, New York, Phyllis B. Lambert Fund

4 Tables (Fan-leg). 1954
Solid and laminated birch, ash veneer, 17¼ x 17¾ x 17¾ in. (43.8 x 45.0 x 45.0 cm). Stamped: Alvar Aalto Artek Artek Oy Ab, Helsinki

Pierced-leg Stool. 1946–47
Solid and laminated wood, rattan, 17¾ x 17½ in. (45.0 x 44.5 cm). The Museum of Modern Art, New York, Marshall Cogan Purchase Fund

Stacking Stool (Y-leg). 1946–47
Laminated wood, webbing, 17¼ x 16⅛ x 16⅛ in. (43.8 x 41.0 x 41.0 cm). Artek Oy Ab, Helsinki

Prototype Side Chair (Y-leg). 1946–47
Laminated wood, fabric upholstery, and webbing, 30½ x 16 x 15½ in. (77.5 x 40.6 x 39.4 cm). Alvar Aalto Museum, Jyväskylä

Stacking Side Chair (Y-leg). 1946–47
Laminated wood, leather, 31¼ x 19¾ x 19¾ in. (79.4 x 50.1 x 50.1 cm). Alvar Aalto Museum, Jyväskylä

Glass

*Aino Aalto

The following glassware was designed by Aino Aalto for the 1932 Karhula-littala Competition for pressed glass. Series manufactured under the name "Aalto."

***Stepped Pitcher.** 1932
Clear pressed glass, 6¾ x 5⅞ in. (17.2 x 15.0 cm). The Karhula Glass Museum, Karhula

***Stepped Tumbler.** 1932
Clear pressed glass, 3⁹⁄₁₆ x 3 in. (9.0 x 7.5 cm). The Karhula Glass Museum, Karhula

***Stepped Bowl.** 1932
Clear pressed glass, 2⅝ x 7¹³⁄₁₆ in. (6.7 x 19.8 cm). The Karhula Glass Museum, Karhula

***Stepped Bowl.** 1932
Clear pressed glass, 2½ x 7⅞ in. (6.4 x 20.0 cm). The Karhula Glass Museum, Karhula

***Stepped Plate.** 1932
Smoke-colored pressed glass, 1⅛ x 9⅞ in. (2.8 x 25.0 cm). The Karhula Glass Museum, Karhula

***3 Stepped Schnapps Glasses.** 1932
Smoke-colored, green, and amethyst pressed glass; smoke-colored: 2³⁄₁₆ x 2 in. (5.5 x 5.1 cm); green: 2³⁄₁₆ x 1⁵⁄₁₆ in. (5.5 x 4.9 cm); amethyst: 2³⁄₁₆ x 2 in. (5.5 x 5.1 cm). The Karhula Glass Museum, Karhula

Variation on Aino Aalto's 1932 pressed glass "Aalto" series. Produced by Karhula Glass Factory.

***Stepped Plate.** 1935–36
Blue-green pressed glass, 1¼ x 7⅞ in. (3.1 x 20.0 cm). The Karhula Glass Museum, Karhula

***Stepped Plate.** 1935–36
Clear pressed glass, 1⅛ x 9⅝ in. (2.8 x 24.5 cm). The Karhula Glass Museum, Karhula

***Stepped Bowl.** 1935–36
Blue-green pressed glass, 2¼ x 6¼ in. (5.6 x 15.9 cm). The Karhula Glass Museum, Karhula

***3 Stepped Tumblers.** 1935–36
Blue-green pressed glass, 3¹¹⁄₁₆ x 3 in. (9.4 x 7.6 cm). The Karhula Glass Museum, Karhula

Alvar Aalto won second prize for this design in a 1933 art-glass competition sponsored by Riihimäki Oy.

"Flower of Riihimäki," Nest of 5 Vases. 1933
Clear mold-blown glass 1⁷⁄₁₆ x 12⅝ in. (3.6 x 32.0 cm), 3⅜ x 11⅜ in. (8.5 x 28.9 cm), 4½ x 9³⁄₁₆ in. (11.4 x 23.4 cm), 5⅛ x 6½ in. (13 x 16.6 cm), 3⅝ x 3⅜ in. (9.2 x 8.5 cm).
Collection Elissa Aalto, Helsinki

Tall Vase. c. 1936
Clear mold-blown glass, 38⅞ x 13½ in. (98.8 x 34.3 cm). Collection Maire Gullichsen, Noormarkku

Vase. 1936
Pale green mold-blown glass, 11½ x 12⅜ in. (29.3 x 31.4 cm) The Karhula Glass Museum, Karhula

Vase. 1936
Smoke-colored mold-blown glass, 18¾ x 7½ in. (47.6 x 19.0 cm). The Karhula Glass Museum, Karhula

Wide-rimmed Shallow Dish. 1936
Clear slumped glass, 1⅛ x 13¾ in. (2.8 x 35.0 cm). The Karhula Glass Museum, Karhula

Bowl. 1936
Clear mold-blown glass, 2 x 15⅛ in. (5.1 x 38.5 cm). The Karhula Glass Museum, Karhula

Vase. 1936
Clear mold-blown glass, 2¹⁵⁄₁₆ x 14½ in. (7.5 x 36.8 cm). Collection Touko Saari, Seinäjoki

Vase. 1936
Light green mold-blown glass, 11½ x 8 in. (29.1 x 20.3 cm). Collection Touko Saari, Seinäjoki

Set of 4 Stacking Plates. 1936–39
Green slumped glass, ⁷⁄₁₆ x 5¾ in. (1.2 x 14.0 cm), 1¹⁄₁₆ x 6¹³⁄₁₆ in. (1.8 x 17.3 cm), 1 x 9 in. (2.5 x 22.9 cm), 1¼ x 11⁵⁄₁₆ in. (3.2 x 28.7 cm). Collection Touko Saari, Seinäjoki

Plate. 1936–39
Clear mold-blown glass, ¾ x 9½ in. (2.0 x 24.1 cm). The Karhula Glass Museum, Karhula

Wooden Mold for "Savoy" Vase. 1936
Wood, 14⅛ x 14⅞ in. (35.8 x 37.8 cm). The Karhula Glass Museum, Karhula

Aalto was awarded first prize for this design in the 1937 Karhula-littala Glass Competition for art glass.

"Savoy" Vase. 1936
Amber mold-blown glass, 5⁹⁄₁₆ x 8 in. (14.1 x 20.3 cm). The Karhula Glass Museum, Karhula

Snack Tray. 1938
White molded glass, 1⅛ x 11⅜ x 8¼ in. (2.8 x 28.8 x 21.0 cm). The Museum of Modern Art, New York, gift of Mrs. Susanne Wasson-Tucker

"Aalto's Flower," Nest of 4 Vases. 1936–39, current production 1980
Clear mold-blown glass, 1½ x 14¾ in. (3.8 x 37.5 cm), 3¹⁄₁₆ x 10⅛ in. (7.7 x 25.6 cm), 4⁹⁄₁₆ x 7⅜ in. (11.6 x 18.8 cm), 5¹³⁄₁₆ x 4¾ in. (14.7 x 12.1 cm). Collection Elissa Aalto, Helsinki

Snack Tray. c. 1947
White molded plastic, 1 x 13 x 9¾ in. (2.5 x 33.0 x 24.8 cm). Collection Touko Saari, Seinäjoki

Drawings

*Alvar and Aino Aalto

***Furniture for Ladies' Clubroom, Häme Student's Society, Helsinki.** 1924
Ink on tracing paper, 12¾ x 18¾ in. (32.4 x 47.6 cm). Collection Elissa Aalto, Helsinki

Furniture for the Banking Department, Agricultural Cooperative Building, Turku. 1928
Ink and pencil on tracing paper, 26¾ x 26½ in. (67.7 x 67.4 cm). Collection Elissa Aalto, Helsinki

Furniture for the Sacristy of Muurame Church, Muurame. 1928
Ink on tracing paper, 25⅜ x 19½ in. (64.5 x 49.5 cm). Collection Elissa Aalto, Helsinki

Accoustical Diagram for Viipuri Lecture Hall Ceiling, Viipuri. c. 1933
Pencil and colored pencil on tracing paper, 11¼ x 25½ in. (28.5 x 64.8 cm). Collection Elissa Aalto, Helsinki

Fireplace, Villa Mairea, Noormarkku. 1938
Pencil on tracing paper, 20¼ x 24⅝ in. (51.5 x 62.5 cm). Collection Elissa Aalto, Helsinki

Profile of "Paimio" Lounge Chair. 1932
Pencil on tracing paper, 29⅜ x 40½ in. (74.7 x 102.8 cm). Collection Elissa Aalto, Helsinki

Variation on "Paimio" Lounge Chair. 1932
Pencil on tracing paper, 30⅞ x 46¾ in. (78.5 x 118.7 cm). Collection Elissa Aalto, Helsinki

Profile of Prototype of Cantilevered Stacking Armchair, designed for Paimio Sanatorium. 1932
Pencil and ink on tracing paper, 47⅝ x 30⅞ in. (121.0 x 78.4 cm). Collection Elissa Aalto, Helsinki

"China" Stacking Side Chair, Thonet-Mundus Furniture Competition, Berlin. 1929
Ink on illustration board, 15¾ x 15¾ in. (40.0 x 40.0 cm). Collection Elissa Aalto, Helsinki

"Schnitt: 00" Cantilevered Chair, Thonet-Mundus Furniture Competition, Berlin. 1929
Pencil and ink on illustration board, 15¾ x 15¾ in. (40.0 x 40.0 cm). Collection Elissa Aalto, Helsinki

"Thotho" Serving Table, Thonet-Mundus Furniture Competition, Berlin. 1929
Ink, paint, and pencil on illustration board, 15¾ x 15¾ in. (40.0 x 40.0 cm). Collection Elissa Aalto, Helsinki

"10 Stück—9 cm," Nest of Tables, Thonet-Mundus Furniture Competition, Berlin. 1929
Pencil, colored pencil, and ink on illustration board, 15¾ x 15¾ in. (40.0 x 40.0 cm). Collection Elissa Aalto, Helsinki

Profiles of Armchairs, designed for Paimio Sanatorium. 1933
Pencil on tracing paper 23¼ x 21⅜ in. (59.0 x 54.3 cm). Collection Elissa Aalto, Helsinki

Designs for Tea Trolleys. c. 1936
Pencil on tracing paper, 12 x 17 in. (30.5 x 43.2 cm). Artek Oy Ab, Helsinki

Designs for Tea Trolleys. c. 1936
Pencil on tracing paper, 12 x 17 in. (30.5 x 43.2 cm). Artek Oy Ab, Helsinki

Sketches of Fan Leg. 1954
Pencil on tracing paper, 11¾ x 34¾ in. (30.0 x 88.2 cm). Collection Elissa Aalto, Helsinki

Variation on Pierced Leg. c. 1946
Pencil on tracing paper, 12¾ x 17⅜ in. (32.4 x 44.2 cm). Artek Oy Ab, Helsinki

Sketch of Pierced-leg Stool. c. 1946
Pencil on tracing paper, 24⅛ x 22⅝ in. (61.3 x 57.5 cm). Artek Oy Ab, Helsinki

Sketches of Y-leg Applications. 1946
Pencil on tracing paper, 11¾ x 19 in. (29.8 x 48.3 cm). Artek Oy Ab, Helsinki

Sketches of Free-form Vases. c. 1936
Pencil on tracing paper, 11¾ x 67 in. (29.8 x 170.2 cm). Artek Oy Ab, Helsinki

Sketch of Free-form Vase. c. 1936
Pencil on yellow tracing paper, 11¾ x 17⅛ in. (29.8 x 43.3 cm). Artek Oy Ab, Helsinki

Sketches of Free-form Vases. c. 1936
Pencil on yellow tracing paper, 11¾ x 24⅜ in. (29.8 x 62.0 cm). Artek Oy Ab, Helsinki

Sketch of Free-form Vase with Turned-down Rim. c. 1936
Pencil on yellow tracing paper, 11¾ x 15¾ in. (29.8 x 40.0 cm). Artek Oy Ab, Helsinki

Sketches of Free-form Vases. c. 1936
Pencil on yellow tracing paper, 11¾ x 19¼ in. (29.8 x 48.8 cm). Artek Oy Ab, Helsinki

Sketches of Free-form Vases. c. 1936
Pencil on tracing paper, 14¾ x 11¾ in. (37.5 x 29.8 cm). Artek Oy Ab, Helsinki

"Aalto's Flower," section. 1933
Pencil on yellow tracing paper, 11¾ x 17 in. (29.8 x 43.2 cm). Artek Oy Ab, Helsinki

*Aino Aalto

"Bölgeblick," entries for 1932 Karhula-littala pressed-glass competition. Awarded second prize. Production begun 1933 under the same "Aalto."

***"Il Ryhmä" Pitcher, Tumbler, Sugar Bowl, Creamer, Bowls.** 1932
Pencil, ink, and paint on paper, 14¹³⁄₁₆ x 20¾ in. (37.7 x 52.7 cm). The Karhula Glass Museum, Karhula

***"Il Ryhmä" Bowls.** 1932
Pencil, ink, and paint on paper, 14¹³⁄₁₆ x 20¾ in. (37.7 x 52.7 cm). The Karhula Glass Museum, Karhula

Entry for 1932 Karhula-littala art-glass competition. Probably never produced.

***"Ryhmä D—ABCD" Vases.** 1932
Pencil and watercolor on paper, 14¹³⁄₁₆ x 20¾ in. (37.7 x 52.7 cm). The Karhula Glass Museum, Karhula

"Kar-hitt," entry for 1932 Karhula-littala glass competition.

Stackable Glasses, designed for Paimio Sanatorium. Never produced. 1932
14¹³⁄₁₆ x 20¾ in. (37.7 x 52.7 cm). The Karhula Glass Museum, Karhula

"Eskimoerindens Skinnbuxa." Three of Aalto's entries for the 1937 utility and art-glass competition, sponsored by Karhula-littala for Paris World's Fair, 1937.

Initial Design for "Savoy" Vase. 1936
Pencil, ink, and tracing paper on paper, 27½ x 15¾ in. (69.8 x 40.0 cm). A. Ahlström Ltd., littala Glassworks, littala

Vase Design. 1936
Ink, paint, pencil, crayon, and tracing paper on cardboard, 25⅛ x 18¹³⁄₁₆ in. (64.0 x 47.7 cm). A. Ahlström Ltd., littala Glassworks, littala

Vase Design. 1936
Crayon, pencil, paint, and paper on cardboard, 27½ x 19⅜ in. (69.8 x 49.3 cm). A. Ahlström Ltd., littala Glassworks, littala

Painting

Untitled, 1962
Oil on canvas, 25¼ x 31½ in. (64.0 x 80.0 cm) Collection Elissa Aalto, Helsinki

Wood Reliefs

Exact dating is impossible. Reliefs have been reproduced at various times and dates are approximations of the originals.

Experimental Relief, 1931
Laminated wood, 18 x 15⅜ in. (45.8 x 39.0 cm). Alvar Aalto Foundation, Helsinki

Experimental Relief, 1931
Laminated wood, 35 x 33¹⁄₁₆ in. (90.0 x 84.0 cm). Collection Elissa Aalto, Helsinki

Experimental Relief, c. 1932
Solid and laminated wood, 11 x 15⁹⁄₁₆ in. (28.1 x 39.5 cm). Collection Elissa Aalto, Helsinki

Experimental Relief, 1933
Laminated wood, 29½ x 26¾ in. (75.0 x 68.0 cm). Alvar Aalto Office, Helsinki

Experimental Relief, 1937
Laminated wood, 17⅝ x 17⅝ in. (44.8 x 44.8 cm). Collection Maire Gullichsen, Noormarkku

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