

Ambiguity and Tensions in the Architecture of the Main Building of the College of Education at Jyväskylä

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To interpret the architectural expression of Alvar Aalto's mature era has always been a challenge. Although it is possible to characterize his architecture in many ways, it still contains attributes that are hard to define. His architecture can be rightly described as complex. This paper argues that Aalto's main building for the Collage of Education includes contradictory elements that can partly explain the complexity of his architectural expression.

Complexity became known as an architectural concept when Robert Venturi's book *Complexity and Contradiction in Architecture* was released in 1966. In that polemical manifesto Venturi also recognized complexity and contradictory elements in Aalto's architecture.¹ He demonstrated it by using seven Aalto -buildings as examples to support some of his 'phenomena' of complexity and contradiction in *architectural form*². According to him, complexity and contradictions in the architecture of a certain building lead to ambiguity. Furthermore, Venturi "prefers to think of Aalto's art as contradictory rather than irrational."³

In my opinion Venturi's interpretation of the complexity in Aalto's architecture is valid. So I consider that the approach, which he demonstrates in his book, is usable for interpreting Aalto's architecture more closely. The main building was chosen as the case study, because the previous readings of it have been variable and uncertain. Päivi Lukkarinen argues that the building includes "architectural-historical references" and so she challenges its status as modern architecture.⁴ Richard Weston refers to "urban fragments" and "Aalto's metaphoric approach to design", when he writes about the main building.⁵ The understanding about the building needs to be clarified. My aim is to examine the main building from the viewpoint that Venturi represents. What new aspects from the architecture of the building will show up? Accordingly I apply Venturi's seven of the 'cases of complexity and contradiction' in analyzing the building in its milieu.

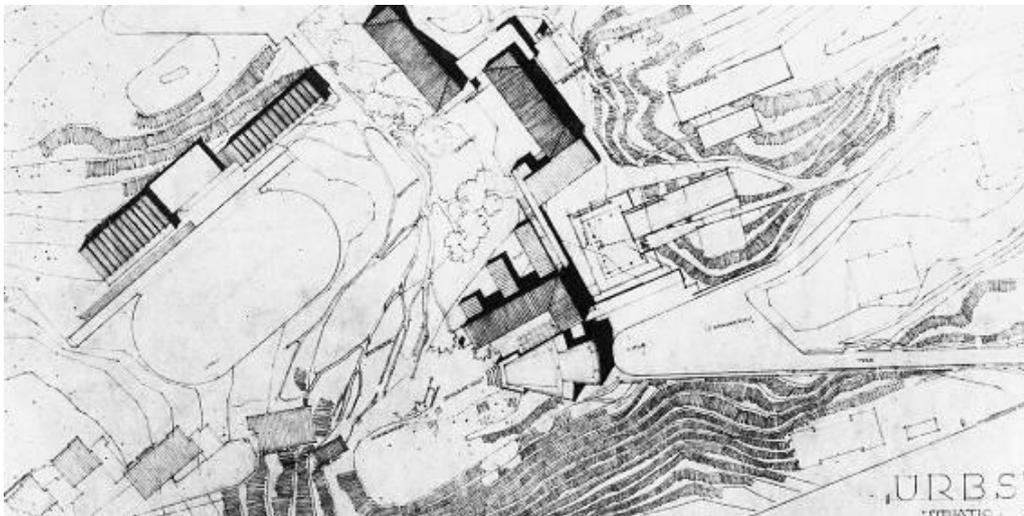


The main building seen from the interior of the campus. Photo: Tuomo Hirvonen.

1. The Main building of the College of Education:

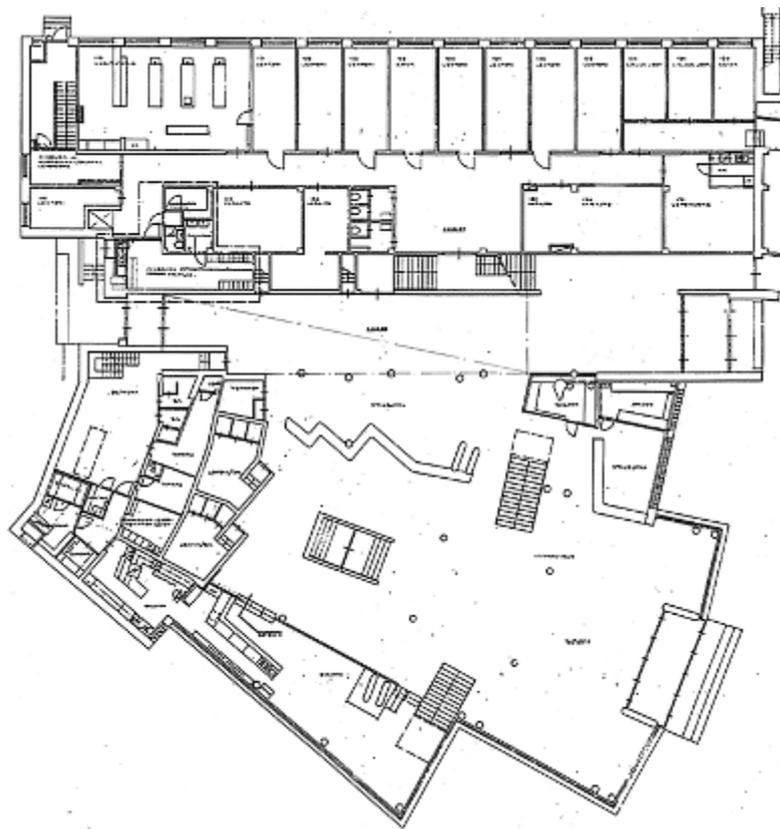
I became familiar with the Aalto Campus while I worked for Alvar Aalto Museum in 1997-98. The project included safeguarding the preservation of the main building. I enlisted the research that should be done and I also carried out part of the actual inventory work. One task was the grading of the spaces and thus setting goals for the maintenance and repair of the buildings. My master's thesis also dealt with architecture of the Aalto Campus.

Alvar Aalto designed the main building on the basis of his winning competition entry of 1951 for the extension to the Jyväskylä College of Education. Today that area is part of the University of Jyväskylä and is better known as the Aalto Campus. The main building was constructed during 1954 to 55.



The site plan of the competition phase. Drawings collection / Alvar Aalto Museum.

Aalto based his campus plan, and the design of the main building, on the topographical nature and landscape of Jyväskylä area.⁶ He set the new campus buildings nearby the old college buildings in a U-shaped formation that opens towards southwest. The buildings were placed at the border of the existing 'tree lines'. The main building was positioned on a plateau by the edge of the hill slope where it dominated the whole arrangement of buildings and the view of the Lake Jyväsjärvi. The entrance square of the main building was connected to the main street of the town center with a straight access road. Originally, the access to the interior of the new campus took place through the building. It was important for Aalto that his campus plan didn't follow the orientation of the grid plan of the town center like the old College buildings did.⁷



The floor plan of the entrance level. Drawings collection / Alvar Aalto Museum.

The layout of the main building consists of two dissimilar sections. Towards the northwest there is the rectilinear administration section and towards the southeast the fan-shaped festival hall with its foyer underneath. Sections are connected together by a high stair hall, which also forms a passage through the building. This interior 'street' is equipped with skylights and it contains the main stair, which serves four storied administration section and the lecture rooms in it. The total layout emphasizes both the role of the entrance square and the 'ceremonial court' on the opposite side of the building. In fact this arrangement is the core of Aalto's complex design.

The festival hall consisted of two big lecture rooms and it was also designed to be hired out for public purposes.⁸ Aalto emphasized its visual connection towards the town. The exceptionally symmetric entrance facade of the festival hall section really catches the eye. The high brick wall of this main facade seems to float on top of the large glazed walls of the foyer.



The main entrance facade. The brick wall is 'floating in the air'. Photo: Tuomo Hirvonen.

The main material of the facades is red brick. Bricks are laid in two rows with a monk bond, which is a medieval bonding. Copper sheet is used as a restricted complementary material. Inside the building, the red brick walls, also with monk bonding, have an important role especially in the main stair hall. The floor material of the main stair hall is light-colored marble mosaic-concrete. In the foyer, the floor material is white marble. The stairs in both spaces are also covered with marble.

2. Venturi's outlook on complexity and on Aalto's architecture in general

Venturi's book is divided in eleven chapters. The first two chapters describe his preference for complexity and contradiction in architecture. At the same time he is against simplified orthodox modernism.⁹ In chapter three; 'Ambiguity', Venturi strives to prove similarity between ambiguity in poetry and the ambiguous architecture that he likes.¹⁰ The last chapter of the book presents Venturi's own projects.

The New Criticism -literary theory, and Venturi's recognition of the tradition in the spirit of T.S. Eliot, formed the background of his manifest. However, the most notable source for him was the overwhelming pictorial material of historical architecture (mostly Mannerist and Baroque) which he presents in the book. He uses that material to back up his principles of complexity and contradiction.

Importantly he adopts the concept of *ambiguity* from the criticism of poetry. Venturi applies it to architecture and generalizes: "Ambiguity and tension are everywhere in an architecture of complexity and contradiction."¹¹ Afterwards Rafael Moneo has confirmed Venturi's goal: "It was complexity, ambiguity and tension that he found attractive, and that he wanted to be able to analyze and explain."¹²

In his scattered 'Aalto -analyses' that the book comprises, Venturi focuses on rather contemporary material. Examples are from the late 50's or the early 60's, apart from the Baker House. He describes that "Aalto's complexity is part of the program and structure of the whole."¹³ Later in the text, Venturi praises Aalto's ability to adapt order together with the inconsistencies and with the circumstantial.¹⁴ He characterizes Aalto's art contradictory rather than irrational - "an artful recognition of the circumstantial and the contextual (...)"¹⁵ He emphasizes Aalto's ability to utilize and solve contradictions already in the master scheme or programmatic level.

Not everyone considers Venturi's methods adequate although they belong rightly to the area of the theory of architecture. Manfredo Tafuri criticizes the way Venturi turns "fashionable' analytical methods" into 'compositive' methods¹⁶, but he does not reject Venturi's analysis totally. I also consider it usable, because in Aalto's case it is able to highlight the non canonical features of his architecture.



The main stair hall. Photo: Tuomo Hirvonen.



The foyer. The columns and the supporting structures alike act as 'elements of space' i.e. they create and define space, because of their expressive cladding. As such they resemble the vertical wooden structures of the stairs, which also create space inside space. Both have metaphorical equivalents in the adjacent forest.

3. 'Cases of complexity and contradiction' as an analysis of the Main building

Next I will present my interpretations of how the Venturi's cases of complexity and contradiction show up in the architecture of the main building. In Venturi's own reasoning, many of them are connected with the ambiguity of perception. The first two cases concern (more or less) architecture as medium and how it is perceived. The cases: 3. to 7. deal more with the architectural program, i.e. form and content as manifestations of the program.

The brick walls of the main building have double meaning: they are part of the supporting structure, yet they have strong visual and cultural (e.g. medieval -period) connotations.

The main building is many-sided and ambiguous from the outside, yet it is functionally logic and compact. The main stair hall is part of the interior, yet it is a combination both of a thoroughfare and a kind of intimate exterior space. The foyer also has qualities both of an interior and exterior space, but in strongly different way than the main stair hall.

The outside of the main building is closed and stern, yet its main entrance and the foyer are inviting and within reach. Although the building is next to nature, yet it is 'urban'. The main building is a modern building, yet it resonates to an older and bigger tradition.

2. 'Contradictory Levels Continued: The Double-Functioning Element'

The main building had a double function from the very beginning. The Festival hall section offered facilities to the College of Education, but it was also intended to serve public purposes independently.

In the foyer, the columns and supporting structures are "double-functioning" elements, because they create and define space in this bigger space. Their meaning as a structure has been modified, as they are covered partly with curved-surface ceramic tiles. Each of three stairs, which lead to the festival hall, is equipped with vertical wooden structures on both sides of them. They are supporting the railings and at same time they act as space defining elements. The stairs become transitional spaces.

3. 'Accommodation and the Limitations of Order': The Conventional Element

Aalto accepted the contradiction which resulted from the positioning of the main building, as it restricted the natural connection from the town center to the interior of the campus. That decision allowed Aalto to transform the main stair hall to a thoroughfare and thus use it as one of the leading motives of the building. Aalto used conventional red brick in an unconventional way, for a modern building, as in the exterior walls the bricks were laid in medieval manner. At the same time, he creates a brick wall that seems contradictorily to hang in the air.

4. 'Contradiction Adapted'

In the site plan, the fan shaped floor plan of the festival hall section takes into account the rectangular coordinates of the 19th century College -buildings as well as the direction of the access road.

The contradiction between the foyer and the adjoining pinewoods scenery is accommodated. The high brick wall with its lower glazed part, which outlines the foyer with its 'unsupported glazed corners', adapts to the near pine forest. The fan shape of the plan of the festival hall section is diagonal in relation to the administration section. That solution helps in the adaptation to the forest.

5. 'Contradiction juxtaposed' -phenomenon does not really exist in the main building.

6. 'The Inside and the Outside'

The tall brick wall -facade towards the ceremonial court takes into account the "particular" and "circumstantial" forces involved. The interior of the festival hall -section does not require its wall to be concave, but it is symmetrically bent inwards. Anyway the difference and the "drama" between outer and inner space are emphasized in the solid wall. Together with the pine forest, it shapes the court as semi urban outdoor space.

The foyer is explicitly the interface of internal and external forces. There is a contrast, because its unconcealed whitish and detailed character is strikingly different from the robust external appearance of the building – nevertheless it creates spatial continuum in relation to entrance square and the adjacent pine forest.

7. 'The Obligation Toward the Difficult Whole'

The unity of the architecture of the main building is achieved through “the dramatic inclusion of contradictory or circumstantial” elements. Aalto has acknowledged the difficult conditions of the program. In the plan, he combined a symmetric form together with an asymmetric form. Primarily, they embody functions of a different kind. In the case of the main building, we can talk about difficult whole that is solved.

4. Ambiguity and Complexity in the architecture of the Main building; Discussion and conclusions

The purpose of this study was to clarify the ambiguous nature of the architecture of the main building. The experimental use of Venturi's 'cases of complexity and contradiction' for analyzing the building brought out new some features of Aalto's architectural expression. They illuminated the character of the architecture of the main building and opened up the complexity of Aalto's architecture.

On the basis of the results, Venturi's outlook seems to adapt to the architecture of the main building. Nearly all his 'cases of complexity and contradiction' exist in some shape or form in the architecture of the building. The 'Both-and'-phenomenon stands out and is a notable source of ambiguity of the building. Also 'Contradiction adapted' -phenomenon is strongly present in many ways because Aalto accommodated contradictions to achieve overall coherence. Accordingly, the 'Contradiction juxtaposed' -phenomenon does not exist such as Venturi interprets it. Aalto didn't incorporate too obvious contradictions in his architecture.

Primarily, the radical positioning of the building in relation to its environment led to contradictions of a different kind, which Aalto solved skillfully. The role of the main building as a public place and the ingenious spatial arrangement are the other sources of complexity and tensions. Typical for the building are the different kind of tensions between a certain exterior space and a distinctive interior space or between two interior spaces. It is rightly to say that the main building includes, as Venturi would express, “the difficult unity of inclusion.”

It is interesting to notice that certain elements of the architecture, like the foyer of the festival hall, seem to be involved in several contradictions at the same time. That enhances even more the ambiguity of the architecture of the building. On the other hand, it reflects the fact that the Venturi's 'cases of contradiction' are not so strictly defined and that they also overlap randomly with each other. Those features are definitely the weaknesses of Venturi's 'theory'.

The contradictions found in the architecture of the main building are justified. One must take into account that the contradictions, which Venturi discovered from the examples of modern architecture, are (inevitably) different from the ones he detected in historical architecture. And after all, Mannerist and Baroque architecture were his main sources of reference.

In the main building, the idea of the modern continuous space meets the principle of the closed interior space of the traditional architecture. That strengthens the idea that Aalto used the ordering principles of modern and traditional architecture at the same time, if needed. So this study backs up the notion that Aalto was not a modernist in the critical sense of the word as far as the main building is concerned. His awareness of the tradition of architecture and definitely the way he utilized tensions (accommodated contradictions) reflects his wide insight of architecture and uniqueness of his art.

The justified conclusion is that the architecture of the main building includes complexity and well accommodated contradictions. But not strictly such as Venturi assigned them in his book. Anyway together they create ambiguity and tensions that are characteristic of this building. Generally speaking, it seems that the complexity in Aalto's architecture of his mature era consists partly of contradictions in architectural form. However the overall complexity of Aalto's architectural expression still includes characteristics that need to be defined.

1 R. Venturi, *Complexity and Contradiction in Architecture*, New York: MoMA, 1966, p. 26.

2 Venturi admits in the second edition (1977) of the book that it was actually about architectural form.

3 Venturi, *op. cit.*, p. 53.

4 P. Lukkarinen, 'Acropolis in the pine forest', in M. Hipeli (ed.) *Alvar Aalto Architect*, vol. 16. Jyväskylä University 1951–71, Helsinki: Alvar Aalto Academy, 2009, p. 48.

5 R. Weston, *Alvar Aalto*, London: Phaidon Press, 1998, pp. 195-7.

6 A. Aalto, " 'URBS' ", in M. Hipeli (ed.) *Alvar Aalto Architect*, vol. 16. Jyväskylä University 1951–71, Helsinki: Alvar Aalto Academy, 2009, p. 50. [A text accompanying Aalto's competition proposal, dated 21.5.1951].

7 *Ibid.*

8 *Ibid.*, p. 51.

9 Venturi, *op. cit.*, pp. 22-7.

10 The titles of the chapters in the rest of Venturi's book refer to each 'case of the complexity and contradiction' in question: 4. 'Contradictory Levels: The Phenomenon of 'Both-And' in Architecture'; 5. 'Contradictory Levels Continued: The Double-Functioning Element'; 6. 'Accommodation and the Limitations of Order: The Conventional Element'; 7. 'Contradiction Adapted'; 8. 'Contradiction juxtaposed'; 9. 'The Inside and the Outside'; 10. 'The Obligation toward the Difficult Whole'. Venturi does not give clear definition to each phenomenon, but he exemplifies them plentifully.

11 Venturi, *op. cit.*, p. 29.

12 R. Moneo, *Theoretical anxiety and design strategies in the work of eight contemporary architects*. Cambridge: MIT Press, 2004, p. 55.

13 Venturi, *op. cit.*, p. 26.

14 *Ibid.*, p. 47.

15 *Ibid.*, p. 53.

16 M. Tafuri, *Theories and history of architecture*, London: Granada, 1980, p. 213.