

ADOLF LOOS

THE LIFE - THE THEORIES - ANALYSIS OF THE VILLA MUELLER

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„... the highest blossom of mental perversity ...“

„The crap box at the Michaeler place.“

„This monster of a house....“

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Adolf Loos



1. The Person – Overcoming the Ancient Man

1.1 Loos' early years

To breed a visionary like Adolf Loos time has to reach a special historic configuration. For the

understanding one has to bring the situation of his homeland, Austro- Hungary, at this time in his mind, one also has to envision the stealthy decay of a multi-national state and to realise the chances for large-scale changes created by that. While Prussia defeats France in the War of 1870/ 1871 and humiliates it with the coronation of the German Emperor in Versailles the Danube Monarchy is paralysed by its losing of the former leading role in the Deutschen Bund (German Confederation) to Prussia in the German War of 1866.

As well the contrast between the two parts of the Dual Monarchy increases and opens the door for eruptions of the smoulding conflicts with the slavonian regions of the empire. Due to this Austro- Hungary is bound by its internal affairs.

In addition the long lasting effects of the bourgeois revolution of 1848 mould the society of the Danube Monarchy. Despite anti-bourgeois repressions the

bourgeoisie emerges in the cities as the leading class, less political but definitely cultural and intellectual. In contrast to that the fall of the gentry seems to be unstoppable.

The emancipation of the bourgeoisie is strongly linked to the search for a bourgeois self and its expression, but already/ yet in 1870 a loss of orientation dominates this search for a up- to- date self expression. The art of the emancipation of the bourgeoisie got caught in copying ancient aristocratic forms of expression – creating the so called Historism. Therefore the hope for a modern bourgeois expression illustrating the breakup into a new era was not satisfied.

Adolf Loos was born in Dezember 1870 into a lower middle class but academically educated family. As shown before, the time of his birth alone could have triggered Loos' provocative way of live and thinking by its general

confusions, geopolitical alterations, social changes and dualisms.

Changes and breaks also mould the youth of Adolf Loos: The early death of his father in 1879 forced his mother to deal with the family business – a stonemason's workshop. Due to the less time the mother could spend with the child and the mothers permanent pressure to assume the business after leaving school, the now defective family ties cause an odyssey of the young Adolf Loos through several residential schools (Brünn, Iglau, Melk, Reichenberg)¹. Despite inadequate school achievements

Loos completes the royal-imperial vocational school of Brno with the Matura.

As well, his next stations of life are also moulded by unsteadiness and inconsequence: neither Loos' study at the Royal-Saxon Technical University in Dresden will be completed nor the planned exchange to the Academy of Fine Arts Vienna will be carried out.

Lusterberger marks Adolf Loos decision of visiting the USA and also respectively the World Exhibition 1893 in Chicago as "the only way out of a situation without future prospect" and the final "waiving of an academic education"².

1.2 Visiting the USA and Great Britain

Loos' time in America can be easily described as a "phase of emancipation"³ in which he developed himself from a minor, student without prospects to a modern and complete human being and gentleman.

But not only his human qualities changed in years between 1893 and 1896, also his aesthetical ideals succumb to this metamorphosis.

The meeting with the simplicity of items of the American applied arts movement, which was also published later in his writings, and the plain elegance of the American rural population caused a "step-by-step dissociation from the (former) habits/practice of aesthetical vision (moulded by the attendance at an European vocational school)"⁴.

The first "pitiful smile"⁵ for the American and English Arts-and-Crafts Movement turns soon into admiration and leads to the realisation/awareness,

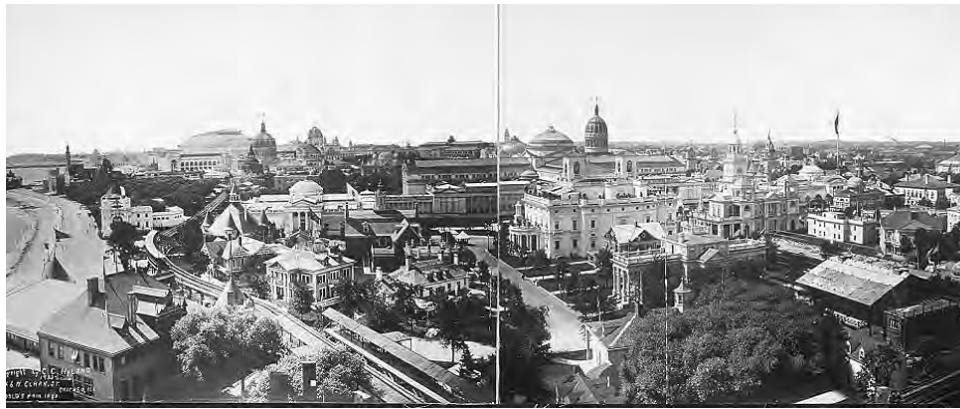


Illustration 2 - Chicago World Fair 1893

that simplicity, plainness are the real expressions of a modern occidental culture.

Important for Loos individual development were the unsettled months of the year 1894, in which he became familiar with the hard and poor living conditions of the European immigrants in New York. Here he had to waive knowingly the material safety of his former life. Due to the fact that a economical crisis caused a high unemployment rate in the USA also Loos got no salaried position and had to work as dishwasher, floor- and bricklayer ⁶. His tramping around the USA, the simple jobs he did and the meetings with normal (new-) american people, who were "changed by a some vital force in this country" and found themselves "in the special process of clearing out" which frees them from "the historic prejudices which made their blood thick and poisoned them while being in their old outdated political geography" ⁸ - that all was like a liberation from the European traditions.

⁸ - that all was like a liberation from the European traditions.

The "Modern Man" now overcomes the "Ancient Man" and freed Loos thinking from the ballast of the outdated forms of culture. Loos writes: "The biting American and English air took all my preoccupation (...) away. Unprincipled men tried to malign our time. Always we had to look back, always we had to be modelled on another time. But my nightmare yields. Yes, our time is beautiful. So beautiful, that I don't want to live in another. ⁹

Not until the end of 1894 when Loos found a salaried position as an architectural draftsman in New York, he could think about saving money for the journey back home. But the incapacitation by his Mother, forced him to leave the USA and marks the end of this period of cutting the cord.

1.3 The essence of the Journey

The important the impressions of America are for Loos, the less there are proved facts about the exact route and received tangible, especially architectural, influences. That there existed buildings which influenced Loos' work is visible. For example the comparison of the rounded window corners of his Uncle Fredrick's house which he saw in 1893 with the similar door design of the 1897 built Ebenstein Fashion Store shows that there are obvious parallels. But Loos himself never referred to that.

But we can take for sure, that the architecture of the Chicago School has carried weight on Adolf Loos. Astonishing similarities (three-pieced horizontal structuring, forms of cornices etc.) of not only one Loosian project with buildings of Louis Sullivan and the occurrence of typical elements of other representatives of the Chicago School mark this as a plausible conclusion. As a

important example for that the Loos- literature points out to the comparison of the combination of bay-windows and coloums at the Fine Arts Building Chicago (Solon Spencer Beman, 1885) and The Rookery Chicago (Daniel Burnham & John Wellborn Root, 1888) with the windows of the mezzanine storey of the Michaelerplatz-House.¹⁰ Also Loos' pride of Sullivan's salutation „my dear brother in spirit“¹¹ seems to support the theory of the Chicago School influence.

Beside the more uncertain influences of the American architecture of that time we can say more about America's effect on his way of thinking. In America we can find the origin of his evolutionary theory of culture. In his writings he often refers to the American natives as a symbol of a lower cultural developed nation due to their opulent use of ornaments on their items of usage ¹². In contrast to that the simple American farmer, in person of Uncle Ben and Aunt Anna,



Ill. 3 -Philadelphia house, Chestnut Street, Frederick Loos

with his plain, elegant style emerges as the symbol of the “modern” human being – far away in the future from the (for Loos) outdated ornaments and playfulness of the European style.

How far Loos' later writings on his American experiences refer to the true events of his journey will never be completely proved. But more important as the absolute truth of his experience and conclusions



Ill. 4 -Entrance door of the Ebenstein Fashion store

is the very existence of them as the essential argument against his opponents, the representatives of the outdated moral, art and society in Europe. Loos' prominence in knowing America and England - the “new world” - and his ability to overcome the still existing European traditions lead to his criticising point of view from the position of a

culturally “higher” developed observer with the demand to educate the people.

2. The Writer – turning-away from the ornament

Loos returned back to Austria, to its capital Vienna, in 1896. At this time Vienna was the blatant contradiction of the modern America. It was affected by the backwards orientated governance of the emperor Franz Joseph I. The society looked back to the previous era and was not able to deal with the problems and possibilities of the new civil society. This was also to observe in architecture and the dominant architectural point of view. The architectural mainstream was the historicism. In the historicism it was common to use and to imitate the design mediums of the ancient eras, like the renaissance, for building houses. There was also another architectural movement in Vienna – the so called Viennese

Secession. This movement was part of the European Art Nouveau. Their ambition was to improve the basic commodity by art. The protagonists of this movement were Otto Wagner, Joseph Maria Olbrichs and Josef Hoffman.

With this environment Loos was confronted when he arrived. It was not possible for Loos to establish himself immediately as an architect in Vienna. Due to this, he started to write essays for Viennese newspapers like the *Neue Freie Presse*, *Die Zeit* and *Die Waage*. In these essays he dealt with problems from all social spheres, like “How long should the hair of women be”, fashion or architecture. Thinking in this wide spectrum he developed his theory of an unornamental way of design. His theoretical work culminated in his main work “*Ornament and Crime*” (1908). Simultaneously to his first essay he got the possibility to realise some interior designs for flats and shops.

All his essays, some of them were published in his own journal “*Das Andere – ein Blatt zur Einführung der Abendländischen Kultur in Österreich*” (“The Other – A journal for the introduction of the western culture into Austria”), was published 1921 in his book “*Ins leere gesprochen*” (“Speaking into the void”) and 1931 in the extension “*Trotzdem*” (“Anyway”). On the basis of these books it is possible to observe the development of his theoretical work.

2.1 Speaking into the void

Starting with the essay “*Lederwaren und Gold- und Silberschmiedekunst*” (“Leather goods and the art of gold and silversmith”), from the 15th of May 1898 where he, based on his American experience, criticised that the Austrian applied arts copied the ancient arts. He attacks the applied art academies and accuses them of doing “*reissbrettdiletantismus*”.

¹³ In his opinion they botched

the design process of the craftsmen and were responsible for the impureness of the basic commodity by the use of historical ornaments.

Loos verbalised his critic of the ornament more exactly in his essay „*Das Luxusfuhrwerk*“ (“The luxury cart”) from the 3rd July 1898. There he wrote:

Searching the beauty only in the form, and make it not depending on the ornament, that is the human ambition. ¹⁴

In this context he also starts to flesh out his theory against the ornament with the cultural history. He creates the following sentence:

*“The lower the cultural level, the more lavish the ornament.”*¹⁵

He will develop this idea farther in his later work “*Ornament and Crime*” to his evolutionary art theory.

With the essay “*Die potemkinsche Stadt*” (“The potemkin city”) from July 1898, he attacks

the Viennese architectural historicism. He sentenced the simulation of material and the nailing on of renaissance facades as amoral, because through this simulation, the Viennese try to turn simple living houses into palaces. So they feign that only aristocrats live in Vienna and not simple civils.

But Loos was not only attacking the historicism, he also attacked the Viennese secession. He criticized their ambition to create a strong formal and mental connection between production, painting, architecture and applied arts. The result should be a *Gesamtkunstwerk* under the leadership of the architect. Loos dismissed this categorically. He followed his own rule, which he described so:

„ The walls of a building belong to the architect. There he rules at will. And as with walls so with any furniture that is not moveable. (... .) The wrought-iron bedstead, table and chairs, hassocks and occasional

chairs, desks and smoking stands – all items made by our craftsmen in the modern idiom (never by the architects); everyone may buy these for himself according to his own taste and inclination.” ¹⁶

His most beautiful script against the Viennese Secession is the essay “*Vom armen, reichen Manne*” (“About a poor, rich man”) from April the 26th 1898. He described how an architect designed a house, the furnitures, the wallpapers and clothes for a rich man. At the end the man is complete. He needs nothing more, and it is not allowed for him to have wishes, because he is complete and has everything. So he is a poor, rich man. Looking at the work of the Art Nouveau architects of this time you recognise that Loos didn't overplay, when he described that the architect designed special clothes for every room – Henry van de Velde did this in reality.

2.2 Anyway – “the important happens anyway”

(Friedrich Nietzsche)

His final polemic paper “*Ornament and Crime*” from 1908, is the aggregation of his theoretical work. Here he describes his evolutionary art theory:

“evolution of culture is contemporaneous with the removal of the ornament from the basic commodity”¹⁷

He founded this sentence by looking at the native (Papua), which tattoo themselves. For the native this behavior is fine, but would the modern man tattoo his skin, he would be a degenerate or criminal, because the modern man has negotiated this stadium. In this context he predicated the ornament as “the babble of painting”¹⁸.

His critic of the reawakening of the ornament is not only aesthetic. He also criticized the ornament from the economical point of view. He predicated the ornament as an

economical damage, because the fabrication of ornamental basic commodities needs more manpower and material than for an unornamental one. The working time which should not be wasted for the ornament, should be used to produce more products or for the freetime of the worker. Due to that, Loos thought, the general social wealth could be increased. Wasting material and working time for the ornament – that is what Loos called a crime.

The conversion of these revolutionary ideas, which happened two years later, required a disputatious character. That Loos was such a character shows his reaction to a critic, which he got for his essay “*Ornament and Crime*”:

„I tell you the time will come when the furnishing of a prison cell by the royal upholsterer Schulze or by Professor Van de Velde will be considered an aggravation of the sentence.”¹⁹

The constructional proclamation of his writings happened 1910. Loos built his first house – the house at the Michaelerplatz (also known as the Loos house). It shows how he thought ideas could get reality. The lower part of the house is made out of Cipolini marble. Ornamentless built, it lives from the rich texture of the marble. Over this base is the plain part of the house. Only an unornamental render facade with outcut square holes for the windows. The ending of the house is a high and rampant roof. Loos did his building not only without the normal ornamental facade arrangement, he also did it without the finishing frieze from the classical facade trisection for townhouse of this age. The only decoration at the facade are the bronze flower boxes, which were the result of a long argument between him and the city. This argument was affected by building breaks and the involvement of the public. The displacement of the ornament through the texture, which is observable at this house and

also at his other projects, makes it possible to see parallels to Mies van der Rohe who also removed the ornament and displaced it with texture. Mies went so far to draw the texture for his projects and selected only stones which would fit in in his texture plan.

The other interesting aspect in this house, but also in his later houses, is the connection of the rooms and the way how they communicate to each other. This was his first realised project where you could see the beginning of the development of his *Raumplan* (plane of volumes).

2.3. Raumplan (Spatial Plan)

“My architecture is not conceived in plans, but in spaces (cubes). I do not design floor plans, facades, sections. I design spaces. For me, there is no ground floor, first floor etc.... For me, there are only contiguous, continual spaces, rooms, anterooms, terraces etc. Storeys merge and spaces relate to each other. Every space requires a different height: the dining room is surely higher than the pantry, thus the ceilings are set at different levels. To join these spaces in such a way that the rise and fall are not only unobservable but also practical, in this I see what is for others the great secret, although it is for me a great matter of course. Coming back to your question, it is just this spatial interaction and spatial austerity that thus far I have best been able to realise in Dr Müller’s house” Adolf Loos²⁰

Adolf Loos merit for the architecture is not only that he developed an architectural language of simplicity and plain elegance in the times

of the luxury of ornament. His creation of the *Raumplan* also introduces a new point of view for the composition and connection of rooms. If we follow Julius Posener²¹ Loos is the last element of the chain Palladio- Le Doux- Schinkel and his *Raumplan* is the descendant of their “bourgeois architecture”. The *Raumplan* is the attempt of Loos to reconcile the demands of the classic bourgeois architecture – simplicity and building for usage.

In contrast to the term “*Raumplan*” which was firstly used by Heinrich Kulka in 1931 the idea behind, the “solving the floorplan in space”²², is the result of a continued process in the work of Adolf Loos. For Loos the theatre with loges is the origin of his *Raumplan* theory. He states, that “one can only bear the the stay in the narrow and low-ceiled loges and galleries, because they are in an open spatial connection to the high, continuous main hall.”²³

He also comes to the conclusion, that "one can save space through connecting a higher main room to a lower annexe"²⁴

The first use of the Raumplan in Loos architecture, as he said, was in the unbuilt project of the "Ministry of War" ("Kriegsministerium") in Vienna in 1907/08.

Basically it can be said, that for Loos two things were important within his Raumplan - firstly a differentiation of the height of the ceiling in differently used rooms, with a strong link to the privacy which the room should provide, secondly the creation of room sequences with the different rooms, with a special importance on the visual connections of the rooms. That means precisely that more private annexes with lower ceilings are spatially connected through stairs, visually through view-throughs etc. with higher more public rooms. The different heights of the ceiling cause a break-through of the established horizontal layering²⁵ of the house. This leads to complex space structures which

were made available by as well complex vertical circulation by stairs.



Ill. 5 - Villa Müller

Typically in Loos' houses the rooms are vertically shifted by a half of the height of a storey (Tzara House, Moissi House) or 2 higher storeys face 3 lower storeys in the whole cubature (Mueller House). The best and most impressive use of the Raumplan can be found in the Mueller House, which was built in 1930 in Prague for the building contractor Dr. Frantisek Mueller.

3. The Villa Müller

3.1 Introduction

In the autumn of 1928 the civil engineer and building contractor Frantisek Müller, partner in the successful building firm Kapsa & Müller, commissioned Adolf Loos and his associate Karel Lhota to design the new house for the Müller family.

Due to the professional closeness of the contractors, a strong affinity of their thinking and other personal characteristics Loos, in strong accordance with Müller, was able to design and build the masterpiece of his late work: the conversion of his Raumplan into built reality.

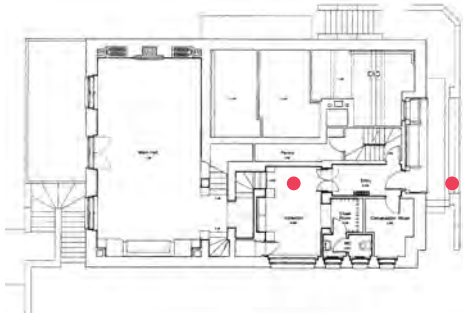
Together with Lhota Loos designed in only two months the house which would be later to be recognized as the "pinnacle of his work" (*Heinrich Kulka: Das Werk des Architekten, Wien, Anton Stroll Verlag, 1931 in: Kleinman, van Duzer, 1994, S. 19*)

One must add that Loos' design of the Villa Müller was strongly influenced by the design of the Rufer House, albeit he considered the construction of the Rufer House with its single middle column as inapplicable for the Villa Müller. As well he adopted the main aspects of the Rufer House as there are the overall arrangement of utilisation of rooms, the roof-terrace and the central representative stair.

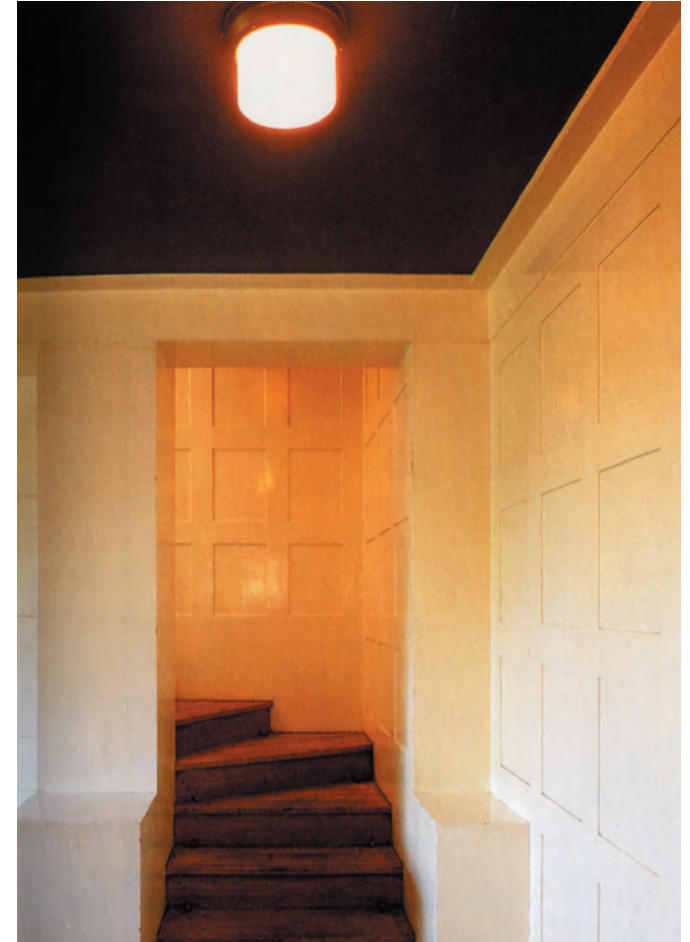
The first design of the Villa Müller in 1928 was a simple cuboid with a 3:2 relationship of the sides of the footprint rectangle of the house. To give the front and the backside an square appearance though there existed a the strong slope of the terrain, he decided soon to use his in former houses (e.g. Moller House) yet formulated design idea of the terrace house. The roof-storey should only be carried out on the hill side of the house, faced to the valley side he planed a vast terrace, which lowered the visible facade on that side to a square appearance.

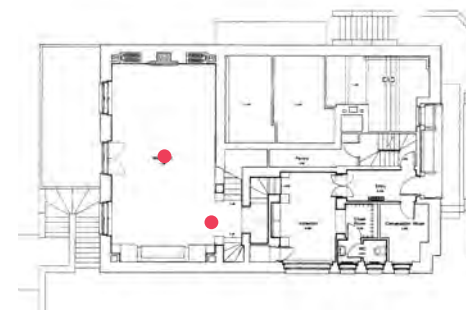
Despite repeated appeals of the local building authority against the measurement of the building footprint, the number of storeys and several design elements the original design of the house could be carried out largely. Loos won in dealing with the building law, which he showed for example yet in the roof design of the Steiner House, and Müller's experience as building contractor, especially in dealing with the building authority, were in our opinion the main influence on not getting changed the original design too much.

For an easier access to the analysis of the Villa Müller we present firstly a virtual tour through the building.

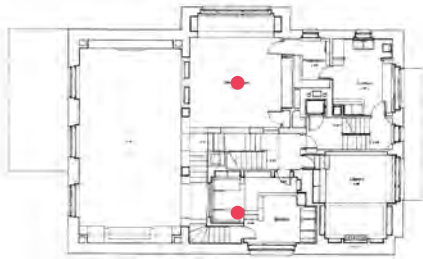


above: Ill. 6 - view to the entrance
 right: Ill. 7 - view to the rise to the first level

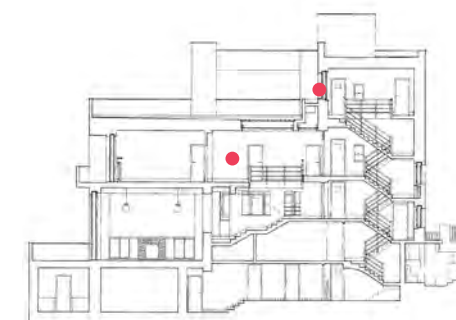
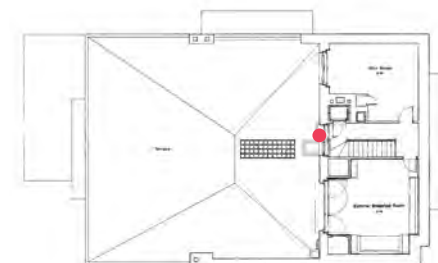




above: Ill. 8 - the hall
left: Ill. 9 - view from the hall to the staircase



above: Ill. 10 - dining room
right: Ill. 11 - boudoir



above: Ill. 12 - staircase with skylight
left: Ill. 13 - roof terrace with skylight

3.2 Analysis

The analysis of the Viller Müller mainly refers to the relations of the measurement of the parts of the structure, the storey floor plans and facades. The basis of our work are the excellent floor plans, sections and façade prints of Leslie van Duzer's and Kent Kleinman's book "Villa Müller – A Work of Adolf Loos". We completed and analyzed them graphically with the help of CAD- and drawing programmes as AutoCAD and Adobe Illustrator. As well we created a three dimensional model of the rooms (room imprint or moulded rooms), to show the relations, views and height differences – the Raumplan - more vivid.

A virtual round tour through the Villa Müller, as well illustrated for a better understanding by the view direction in additional floor plans, ought to give further insights into the architecture of the Villa Müller.

3.2.1. The Site

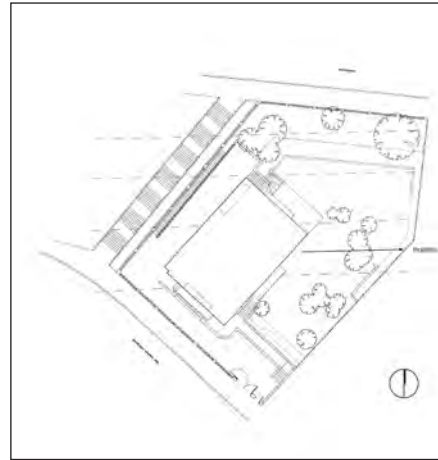


Illustration 14: siteplan

The site of the Villa Müller is situated in a western district of Prague, Stresovice, an at the time of building the Villa emerging suburb with mainly free standing residential houses. Additionally it is located on the northern slope of a hill with view to the castle of Prague, the Hradshin. Only the eastern and south-eastern side of the site border on sites with houses, the remaining sides are facing public space. Thus in the south-west a smaller road (Nad Hradnim Vodojemen) ,leading to a older residential area, in the

north a heavy used road and at least a public thoroughfare (in the appearance of a stair built at the same time when Villa Müller was built) delimit the site.

Due to the in North-to-South direction of the slope and the alignment of the site to the North-east, there exists a double slope having its lowest point in the north-eastern corner of the site.

The building itself is more extroverted to the North and more introverted to the South because of it's exposure on the north-facing slope.

One can enter the site from the South as well as from the North however the main entrance with the access to the garage is located to the south because of better accessibility and the less used street. From North a narrow stair over the whole length of the western side of the site provides access to the house.

The building is moved as far as possible to the western end of the site to create a small, more private area in the garden in

the East. Due to the sloping terrain this area is terraced and to secure it from unwanted insights surrounded by trees.

3.2.2 Cubature & Facade

The cubature of Haus Mueller is roughly based on two shifted cubes in north-east alignment and of approx. size 12x12x12m, which are arranged that they fit the slope of the site. The displacement of one of the cubes by almost half of its depth (5,50m) in north-east direction explains on one hand the 2:3 ratio of the base and on the other hand the partitioning of the floor plans into three parts and the arrangement of the 4 constructive piers. While the elevation of the north cube seems to be explicitly arbitrary with respect to the slope, it becomes clear under closer investigation that the cube was vertically shifted by a fourth of its size.

3.2.3 Proportions / Relations / Symmetry / Axes

North façade

As already said, the part of the north façade, visible from the northern road, is nearly square, if one will accept the absence of a defined base of the Villa Müller.

The arrangement of the windows and their combination to a geometrically similar rectangle clarifies the form of the façade and due to the principle of similarity will give the façade a more consistent appearance with a clear disjunction from the roof storey facade.

As well this effect is supported by the similar and nearly square appearance of the visible parts of the door windows of the balcony.

With a vertical movement of the façade rectangle to the level of the terrace top, a movement by the minor of the Golden Section

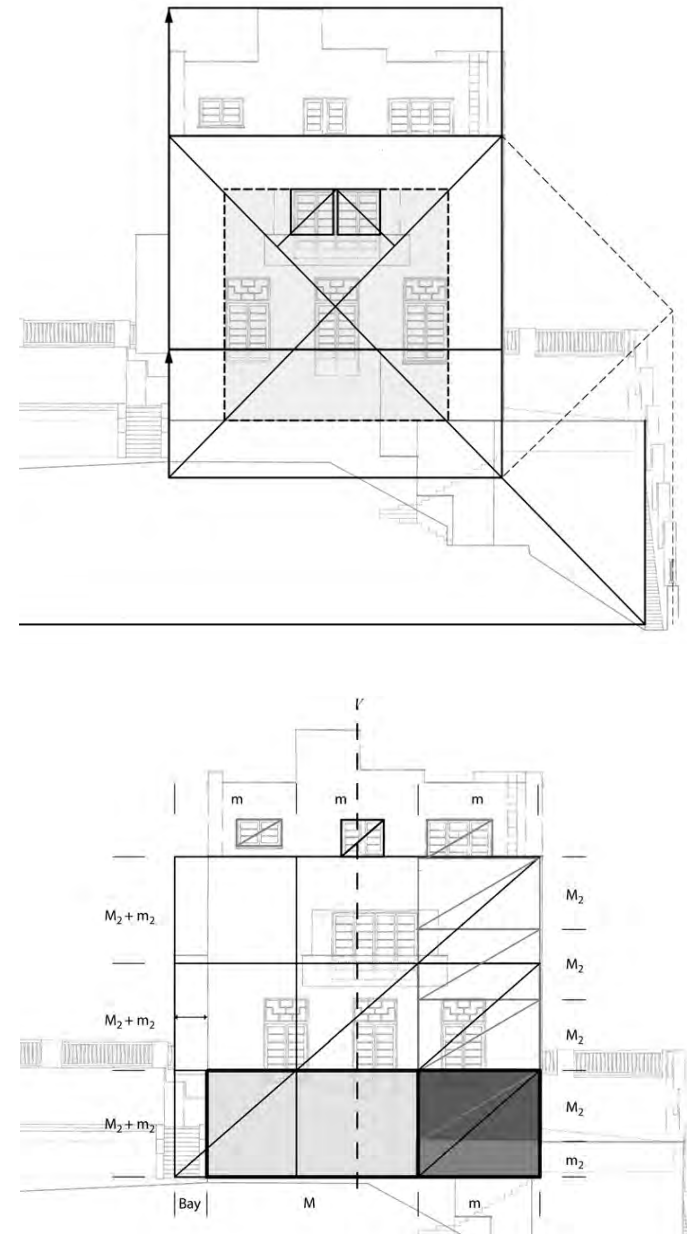


Illustration 15, 16 - north facade

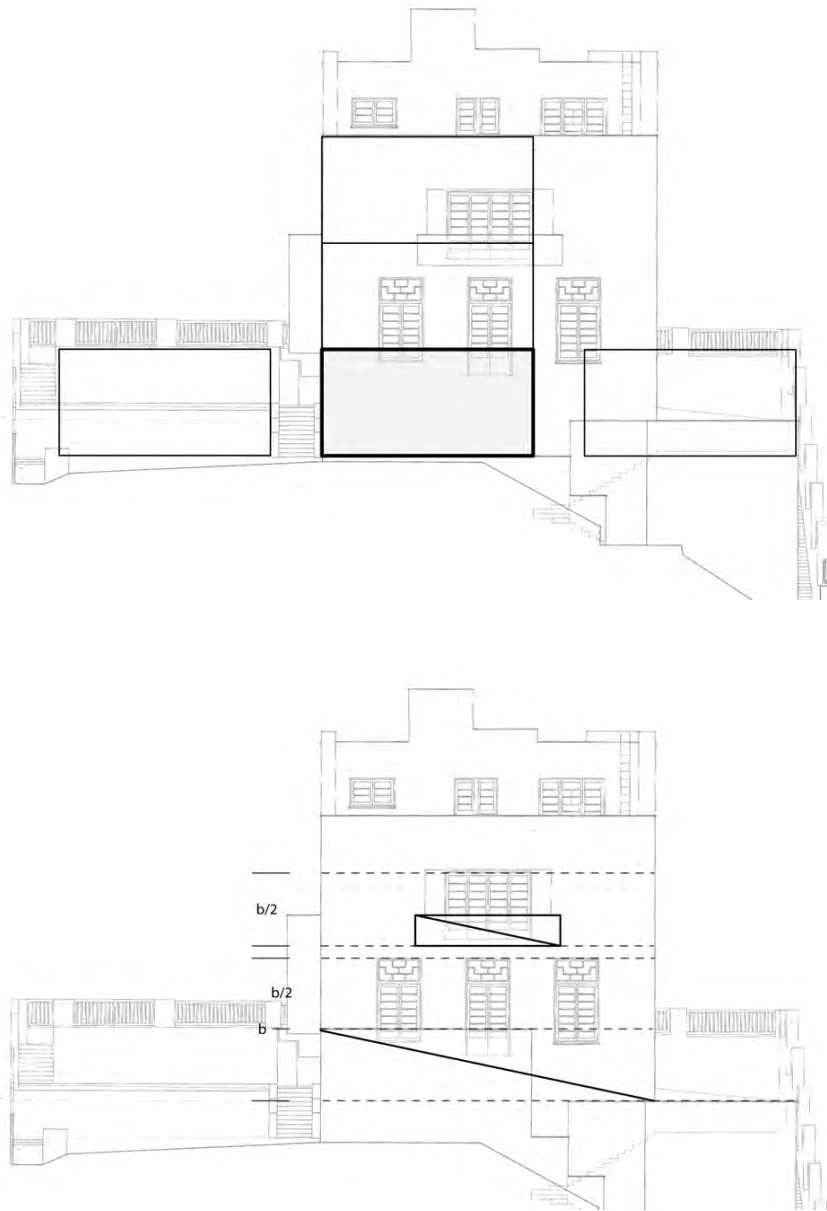


Illustration 17, 18 - north facade

of the rectangle, the upper end of the rectangle will mark the upper end of the building.

A further key for understanding the interrelations of the forms within the façade is the appearance of the ground level terrace. The origin of the measurement is the form of forward north façade. Not only, the top of the terrace marks the minor of the height of the forward northern façade, the rectangular form of the terrace is also geometrically similar to the half of the facade square. Furthermore the major (M) of the Golden Section of the width of the north facade is the width of the ground level terrace, what explains their elegant integration into the overall picture of the façade.

Following this approach one will recognise that the remaining minor (m) in combination with the height of the terrace leads to more connections. A rectangle made of 3x3 tiles of this measurement defines as well the height of the façade as the horizontal total

dimensions of the building defining and so including the prominence of the bay of the dining room.

A further dividing of the height of the minor (m) using the Golden Section (M^2/m^2) reveals the upper end of the wall of the outside stair leading to the garage. The diagonals of the rectangles $((m-M^2+m^2))$ and $(m-M^2)$ created by the dividing are the clue for the aspect ratio of the roof storey. They are also the only visual connection between the lower storeys and the roof storey of the northern façade.

The ground level terrace with its affiliated form is also important for the whole appearance of the northern elevation of the building and its surroundings. Not only due to the absolute measurements of the terrace Loos influences notably the appearance of whole elevation, but also by repeating its form in the visually connected walls of the terraced garden in the eastern part of the site. A movement of the terrace form

to the west with the same width shows the western end of the Villa Müller and establish an encrypted symmetry of forms, only to be revealed by knowing the context.

To explain the visual consistence of the northern façade one has also to focus on the form of the balcony in the first upper storey. To create a visual connection of upper storey and the ground floor Loos formed the Balcony with the same aspect ratio as the ground level terrace if it would be carried out over the whole width of the building. Due to the principle of similarity the viewer will now subconsciously perceive a connection between the two forms and the appearance becomes more consistent.

The representative, forward part of the northern façade is composed strictly symmetrical, an exception is only the arrangement of the annexes such as the terrace and the outside stairs leading to the garage. The vertical axis of

symmetry *I*, of the northern façade corresponds with the middle axes of the great hall of the ground floor and the restroom of the first floor, both located behind the façade.

The centre axes of the outer window of the ground floor correspond with centre axis *II* of the Dining room and respectively with the axis of symmetry of the entrance to the Great Hall. Due to the matching axes a connection to the outside (northern view) is created for both rooms. Especially when entering the Great Hall, after passing the narrow stairs the suddenly appearing view outside creates a feeling of unlimited vastness.

In contrast to the structure of the forward northern façade the elevation of the backwards located façade of the roof storey is closer to the southern façade. The arrangement of the windows and the vertical centre axis of the middle window show a reference to the southern façade and its vertical axis of symmetry *V* which is moved away eastward from

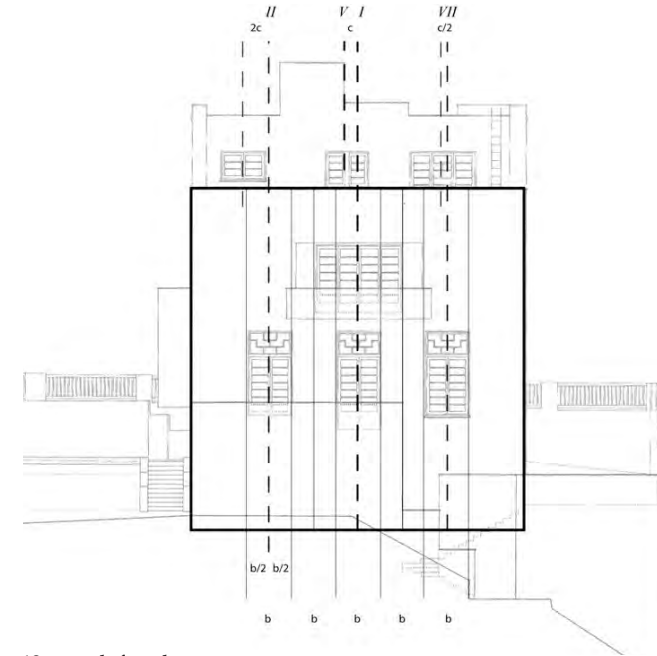


Illustration 19 - north facade

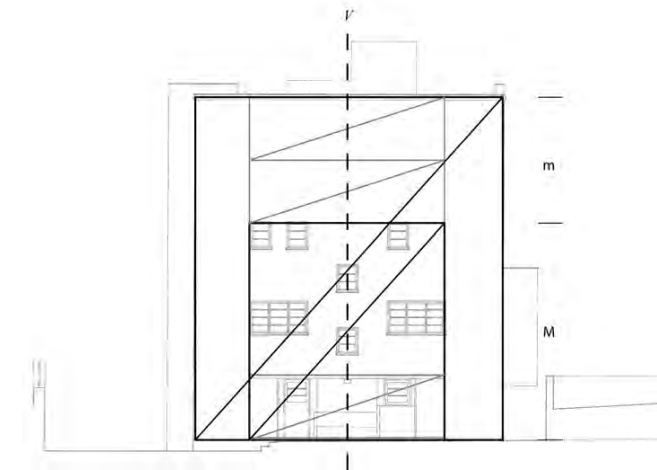


Illustration 20 - south facade

the northern axis of symmetry by the half of the width of the representative stair (c) of the ground floor. The roof storey is by no means symmetrical. The centre axes of the 3 moreover different-sized windows are moved away with different distances ($2c$, c and $c/2$) from their equivalents in the lower storeys.

This reveals a severe difference between the roof storey and the forward part of the northern façade, a difference which was used by Loos, alongside practical consideration, to point out that the roof storey belongs more to the southern facade than to the northern.

Ultimately the rooms of the forward part of the house were made accessible by the centre representative stair, whereas the roof storey only could be reached by the service stair behind the southern façade. Consequently the affiliation was here already specified by the internal circulation infrastructure.

South façade

Classicistic influences on Loosian architecture could be best viewed in the southern façade of the Villa Müller. But this means not simply copying or repeating classicistic stylistic devices as symmetry or harmonic sections. They are used very deliberately to create on the one hand an obviously idealistic and classic image which on the other hand is undermined very shrewd in the same moment. Thus the absence of only one of smallest windows used in the facades decomposes the whole notably strict symmetry of the façade.

In our opinion it also seems that Loos had to decide here between two principles: a strict symmetry on the one hand and the configuration of only one window for every room in every façade on the other. The only exception is the Great Hall with three windows on the north façade (but none on the other flanking facades!) in to point out its exceptional position. Consequently, equipping the

child's playroom with more than one window in the south façade would have lifted it to the same level of importance as the Great Hall, a violation of the hierarchy of rooms Loos could not stand. For the sake of completeness one must add, that viewed from the contrary, decomposing of the symmetry by a missing window will especially focus the attention on the room behind it and maybe tamper its real importance.

The regressed left corner of the south façade is a second element which undermines the symmetry in a very special way. Its role is very well documented in the Loos literature, so one only has to allude, that it is trick to correlate the axis of "symmetry" of the southern façade to the axis of the service staircase. Due to its obviousness it is also a sign to point out the artificiality, the masking effect of the symmetry of the south facade. As shown already on the northern façade also the windows and the entrance area of the southern façade are

combined to create a overall shape, in this case a rectangle corresponding in its aspect ratio with the form of the whole façade. The rectangles height also marks the Golden Section of the façade and is identical with the Major.

In contrast to the northern façade, the southern façade is more introverted.

Alongside the axis of “symmetry” V there are also other analysing axes on the southern façade, which regulate the relations among the windows. A horizontal trisection of the overall shape of the southern façade defines the outer limitation of the windows of the “ground level”. Furthermore it determines the width of the canopy of the entrance area. The centre axes of the ground level windows in combination with the centre axes of the inner windows of the first floor define the measurement of the front door. The centre axes of those inner windows were determined also by a trisection, but of the overall

shape of the southern façade. A hinted reference to the interior of the house can be found in the width of the windows of the staircase. It describes the double distance of the movement (c) of the two symmetry axes I and V as well as the width of the representative stair.

West Façade

In comparison to the northern and southern façade, the western one seems to be not as sophisticated and too reserved for a representative façade (here also the site borders to public space).

The shape of the roof follows roughly the slope of the terrain, whereas it seems that for the terraced appearance the Golden Section was used again. As the use of Golden Section is not confirmed for the heights of the terraces (relations among them) and some of the lengths, it seems that there is no consistent principle.

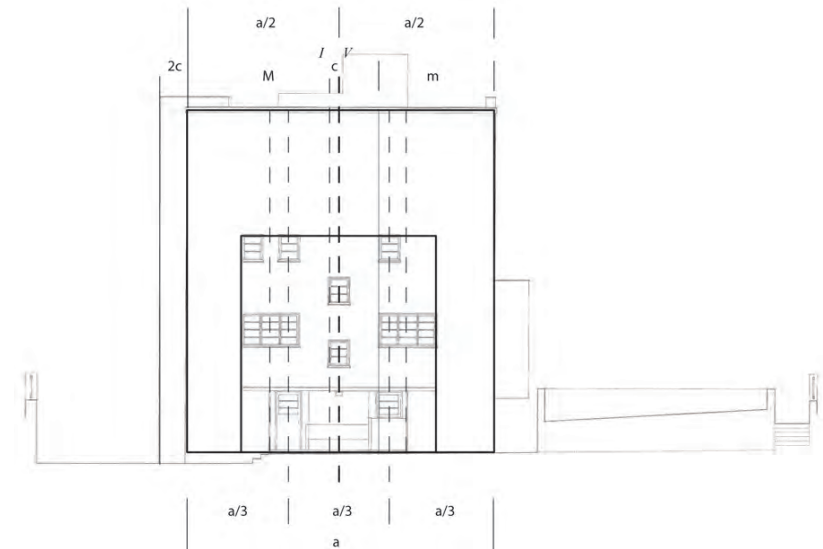


Illustration 21 - south facade

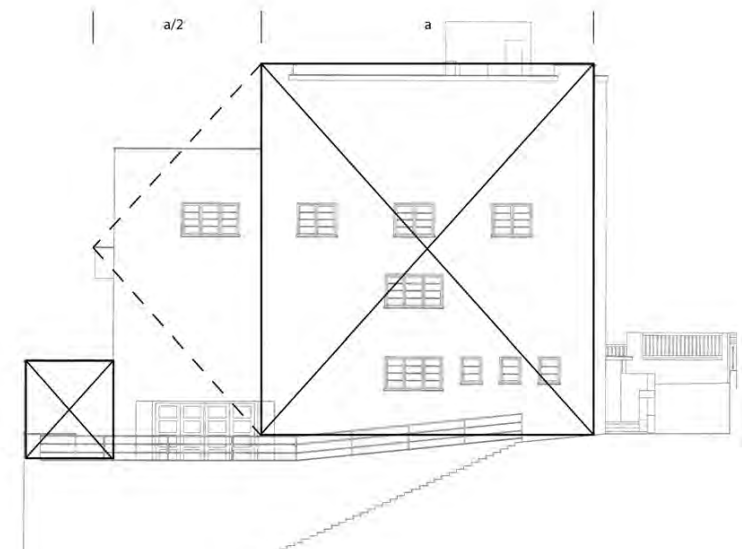


Illustration 22 - west facade

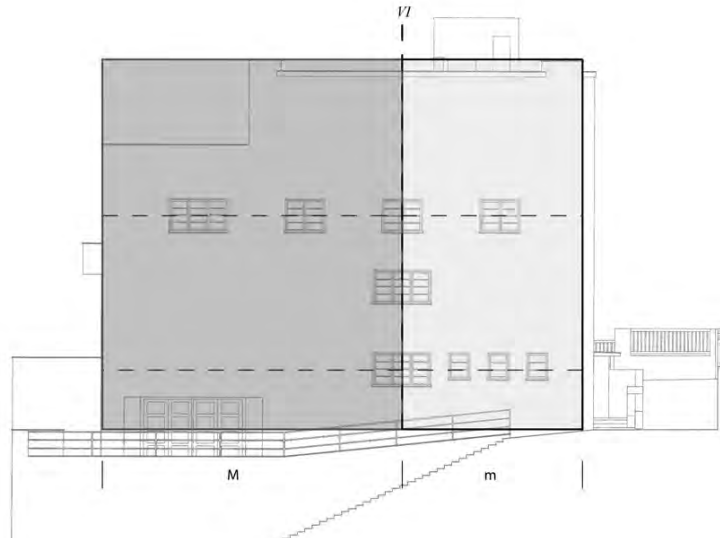


Illustration 23 - western facade

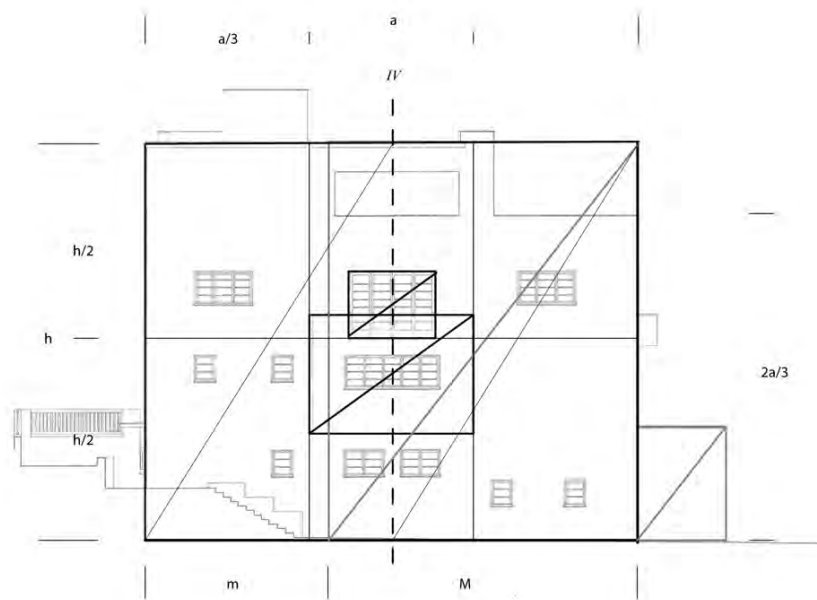


Illustration 24 east facade

Once again more interesting is the measurement of the ground level terrace which importance has been described already. Thus the shape of the terrace is again refined from an overall shape of the façade.

As well as in the North elevation the section (here: bisection) and triplication of an overall shape of the façade defines the prominence of, in this case, the balcony.

The Golden Section of a rectangle enclosing the shape of the building, defines the centre axis of the windows VI. One can see Loos' differentiation of the Back and In-Front in this section, the axial gradient of privacy. Thus here the major of the Golden Section describes the more private part of the house, the minor the more public (service oriented).

East Facade

Ostensibly the eastern façade of the Villa Müller comes across as a wrongly, because on the

unrepresentative side of the site, located representative façade. It seems it would fit better on the western side of the building. But if one goes more into detail, one will recognise that there is a deeper logic, and not a mistake in Loos design.

The more open facades as there are the northern and the eastern façade are much better secured against unwelcome insights by surrounding trees and enough distance/ slope to the public space. In contrast to that the western and the southern façade have to deal with much nearer public spaces and more opportunities for insights, therefore they are carried out more introverted.

As also revealed on the western façade a rectangle enclosing the façade is the influencing design element. Thus the dominant element of the façade, the bay of the dining room, refers with its measurement to the aspect ratio of it.

The bay is also a symbol for the importance of the dining room in the pattern of utilisation of the Villa Loos. The location of

the bay on the only private side of the building also points out the essential function of the room as a room to gather the whole family, as the real centre of the house.

3.2.4 Window- Façade- Correlation

Loos always used window shapes determined by the overall shape of the façade (rectangle or shape) and its sections to fit the windows harmonically into the overall image of the façade.

Diagonals resulting from certain harmonic sections of the overall shape (Bisection, Golden Section (M/m), Octave (Trisection), Quint etc.) and thus defining the aspect ratio are the base for the geometrically similar shapes of the windows. Loos' intention was to reproduce the great in the small by the deliberate similarity and thus to let the all the parts create a consistent ensemble.

The following pages give a review over the used sections of the overall shapes and their reference for the shapes of the windows.

Geometrically similar shapes are always marked with the same grey scale, the aspect ratio is mostly shown with dimensions on the sides

North façade

The basic idea behind the windows shapes of the north façade is - as for most of the other shaping elements - the square enclosing the façade. Similarity in contour between the windows is achieved by the golden section and partitioning into two or four sections. Of particular interest is the combination of two rectangles forming the ground floor terrace, emerging from intersecting the outline square in ratio of the Golden Section.

The diagonal of the half of the original square of the façade is decisive for geometric

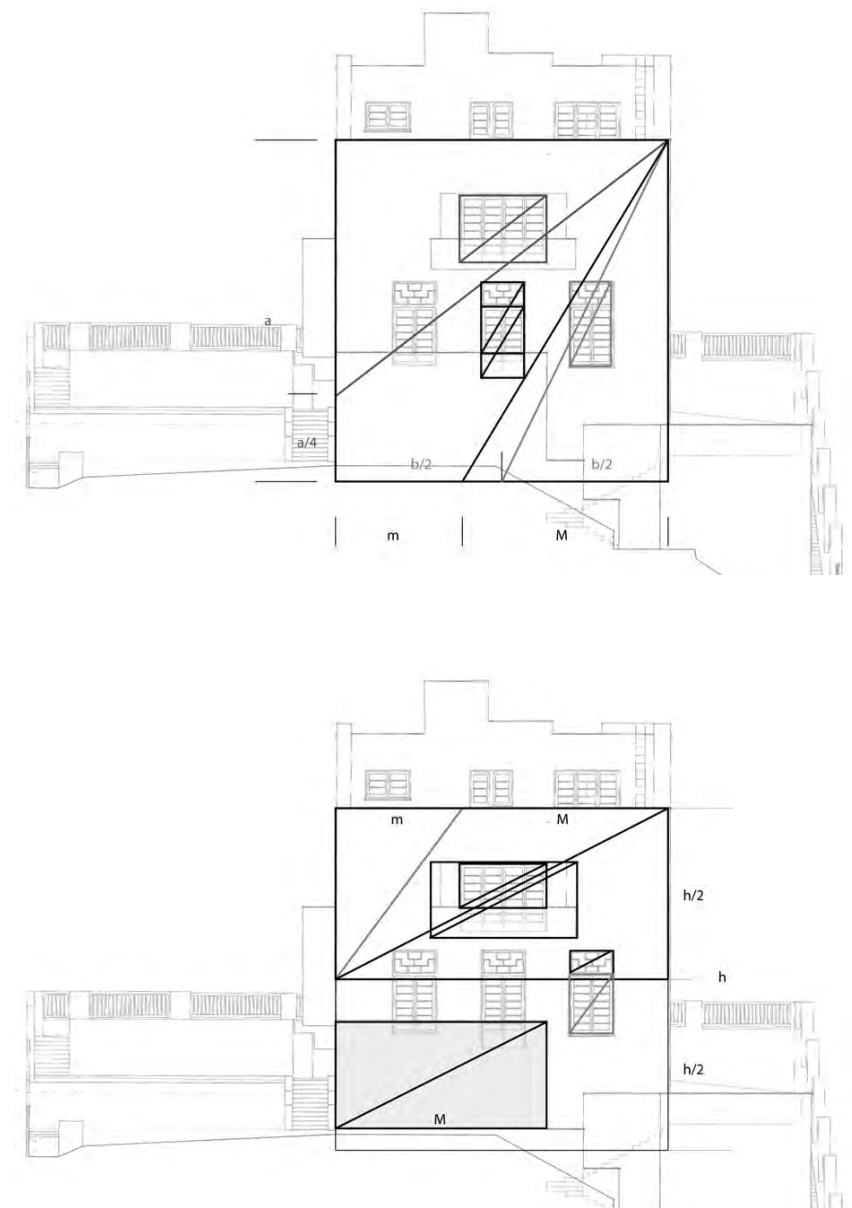


Illustration 25, 26 - north façade

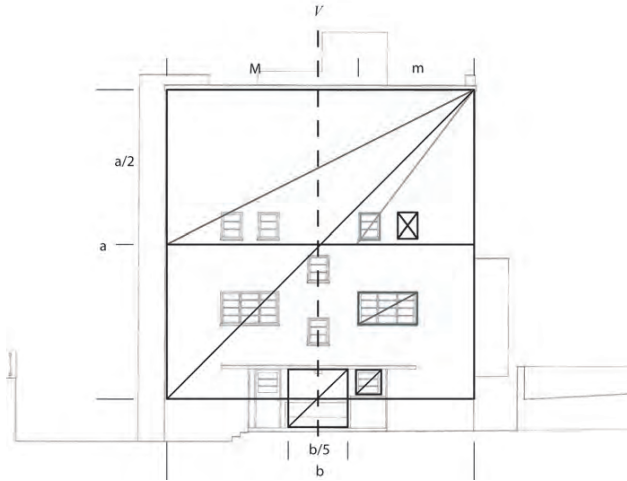


Illustration 27 - south facade

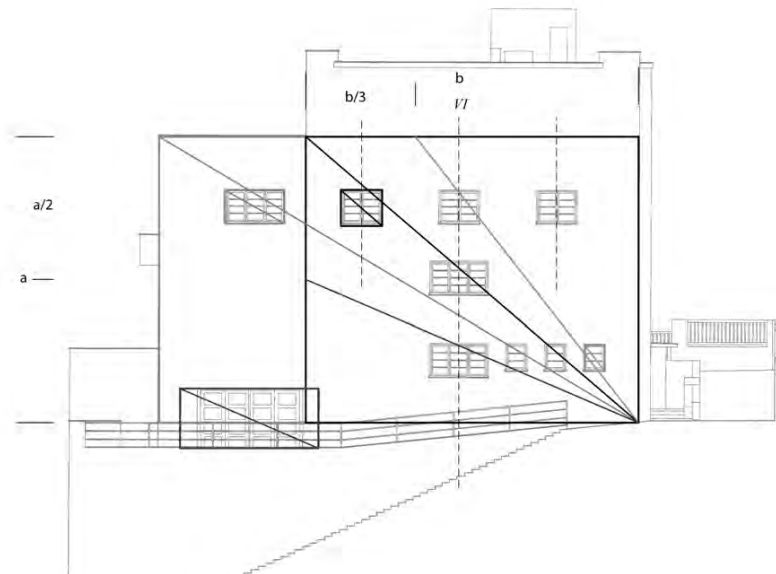


Illustration 28 - west facade

similarities, in particular when investigating the visible part of the balcony door. A geometric similarity with this rectangle can also be observed in both the collective windows-balcony shape and the roof lights of the ground floor windows.

South facade

As for the north facade, the window dimensions of the south facade are also governed by two rectangles. As that facade is plunged into the street level by 1m and hence is only allusively of square shape, this street level becomes the base point of the form-giving square. This square can be found in a fifth of its original size in the entry area where it appears as niche for a bench, flanked by the entrance door on the left and the window to the coal cellar on the right. The shape of the coal window as well as the windows of the entrance door is both derived from that square.

All of the other windows shapes are defined by partitioning diagonals of the half of the facade square.

West facade

Again, the diagonals for geometric similarities between the window sizes of the west facade are defined by two major shapes. Of particular interest is that the garage door with its surrounding immersion has the same dimensions as the main entrance of the south facade - a theme that Loos also applies to the dimensions of the anteroom in the ground floor.

East facade

The window shapes of the east facade are in their similarities bound to the shape of a rectangle that emerges subtractively from the facade. Two rectangles, which shape is defined by the size of the part of the south facade that is plunged into the site, are separated from

the collective facade shape. As such, diagonals that emerge from particular sectioning of the facade, define the base of similarity between the window shapes.

What should additionally be noted are the different distances between the windows of the dressing rooms and the child's room. This distance is caused by a translation of the vertical window axis of the child's room, emerging from the spatial axis of the room itself.

3.2.5 Windows & Room Correlation

Generally it can be said that the size of the windows only marginally correlates with the size of the rooms that are hidden behind. Hence, no statement about those rooms can be made by bare observation of the facade. In addition, the room axis aligns with the windows axis only in rare cases (e.g. eating room without built-in

furniture, anteroom, bedroom of the parents), and therefore even there no coherent concept is observable.

Still, one can say that the size assignment of the windows follows a hierarchy in almost all cases, in which the size of the windows correlates with the level of importance of the function of the room. The common rooms, the big saloon, the eating room and the bedroom have the biggest windows. As such, the bedroom can be assigned a role of representation, even if only in the architectural sense. After all, Loos did not refrain from publishing a photography of his first wife's bedroom as a presentation of his interior design - the most private of all rooms was as such transferred into a public affair. Prepositioned rooms and individual rooms of retreat (e.g. boudoir, library, guest room) receive medium windows size, adjoining rooms, such as storerooms, toilets and bathrooms, have the smallest

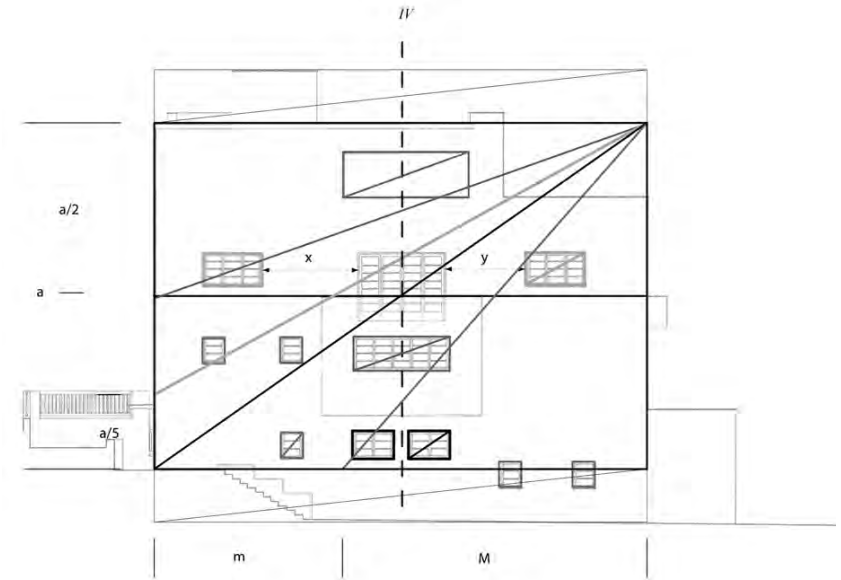


Illustration 29 - east facade

windows. The two dressing rooms and the kitchen with the obvious and, in comparison, too big windows for its function are the only exceptions. However, in the light of the gravity that Loos assigns clothing as an expression of society (consider, e.g., Men's Clothing, Foot Clothing, etc.) the size of the windows of the dressing room seems adequate. The reason for the kitchen window size seems to be purely formal, to obey the (almost) symmetrical south facade. The difference between the Up and Down (gradient of vertical privacy (*Risselada*, 1989, p28) and the Back and In Front (gradient of axial privacy (*ibid.*)), as mentioned by Johan van den Beek in "Adolf Loos - Patterns of Town Houses", are only vaguely noticeable in the facades. In fact, the difference between the front and the back, if the north and south side are considered as such, are obvious, whereas difficulty in expressing gradients of privacy occurs when considering the east and west side. While one can clearly see the function

of representation of the north facade (front towards the street with more traffic and as such more representative) through its bigger windows and the smaller windows to the south, giving cues to the individual rooms and retreats and adjoint rooms that hide behind, a differentiation between the back and the front by considering the side facades gets almost impossible due to its hinted symmetries. Here, game rooms and boudoir are equated with adjoint rooms and guest bathrooms. Differentiation becomes pure speculation.

What can be done easier is a differentiation between the Up and the Down, which becomes particularly visible on the north and the back side. Naturally, even there one may not ask for the use of the rooms that hide behind these windows. Even there, misleading equality (kitchen and library, individual man's leisure room) finds its way. Still, adjustment of

the windows succeeds, whereas a decrease of the windows size towards the top emphasises the increased privacy of the rooms.

If one compares the windows sizes over all facades, an exceptional position of the north facade can be observed. None of the there used sizes of windows can be found on any of the other facades, while those feature constantly repeated windows dimensions (east, south, west facade: approx. 2.20x1.20m and approx. 0.80x1.00m, east, west facade additionally approx. 1.50x1.20m). The balcony door of the child's bedroom (but equal in size to the balcony door of the parent's bedroom on the north facade) and the window of the eating room on the east facade are the noticeable exceptions. Loos' intention was presumably to emphasis with the nonrecurring usage of those window dimensions the exceptional position of the rooms behind them. This modus operandi is particularly traceable for the windows of the Great Hall and the Dining

Room because their window dimensions are used only for those special rooms.

3.2.6 Floor Plan

Compositorial analysis

The floor plan of the house has an aspect ratio of 3 to 2. The long side has a canon of $3a$ and the short side canon of $2a$. That wit it is possible to draw 3 vertical rectangles, with an aspect ratio of a to $2a$, over the floor plan. The shape of the floor plan has also 2 symmetry-axis (I , IV), but only the axis I , which is identical with the facade axis I , is important for the internal structure of the floor plan.

Because the combination of this axis with the 3 vertical rectangles (Ill. 30) lead to an arrangement of 6 squares. This square arrangement is nearly conform with the functional structure of the floor plan. The first square in the lower right corner is the library, the second

the boudoir. The squares over this row contain the Kitchen and dining room. The hall take the space of 2 squares, nearly $1/3$ of the whole floor plan plain. The bay window extend the dining room about the dimension of $1/4a$.

Loos often use a part of the dimension a to describe the measures of the rooms, but he goes further. When it is possible he also design the proportion of the rooms equivalent to the vertical rectangles. Like for example the kitchen with an aspect ratio of a to $1/2a$, the kitchen niche ($1/2a$ to $1/4a$) or the support funnel (which includes a lift) with the same aspect ratio.

If it was not possible to design the room in the same proportion like the vertical rectangles, he based them in another way on the dimension a like for example the boudoir. For this room he use the dimension a in the size of $1/4a$ to place the

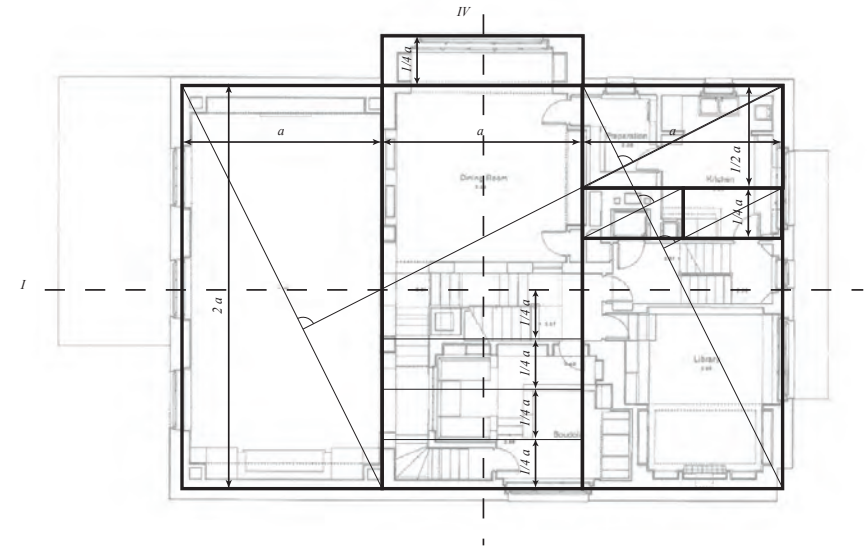


Illustration 30 -first floor

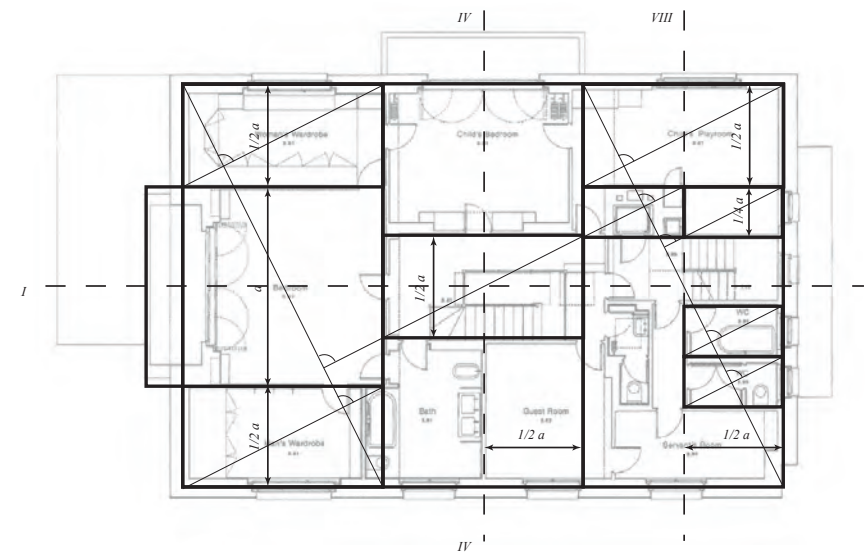


Illustration 31 - second floor

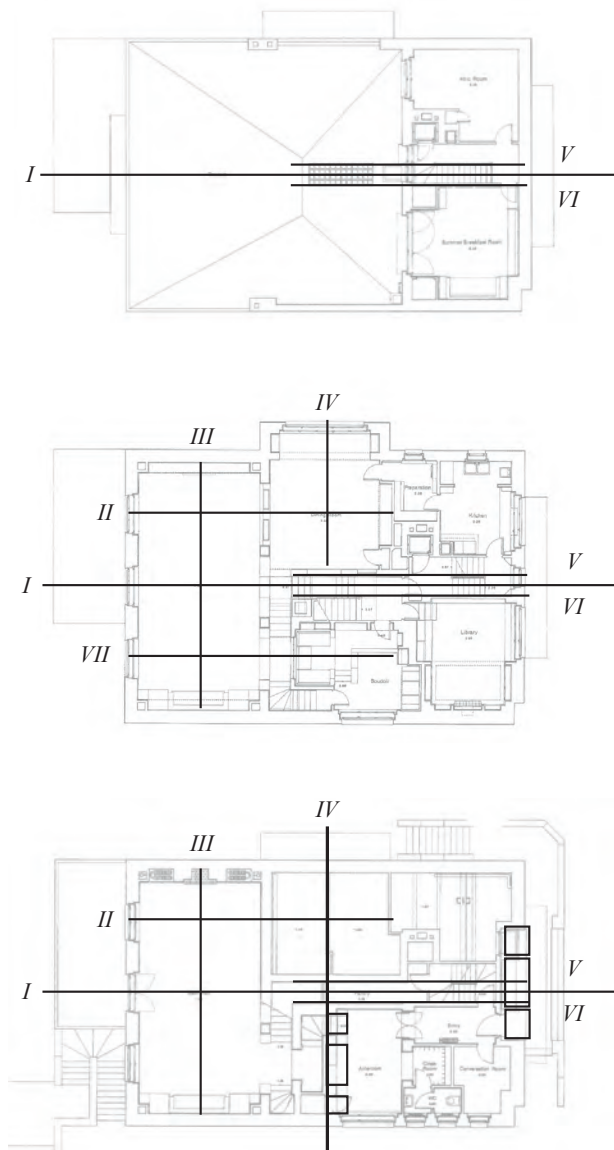


Illustration 32 - roof plan, first floor, ground floor

walls, the podium of the room and also the entrance for the stair.

Loos use the same system to design the second floor (Ill.-31). The symmetrical placed robing-rooms have the same proportion like the vertical rectangle and are also based on the dimension a (aspect ratio a to $1/2a$). An identical sized rectangle describes the child's playroom and the staircase, consisting of the gallery, the stair well and the stair. Also the toilet and the bath room have the same aspect ratio of $1/2a$ to $1/4a$. It is also interesting to see that the axis VIII, which divides one vertical rectangle in the middle, is identical with the wall of the bath room, the toilet and the support funnel.

The floor plan shows that Loos followed for the design straight and basic composition rules, like in the facade.

Loos could not keep up on his compositorial conception in the basement and the ground

floor. The reason for this is the fact that the basement with the support rooms (laundry, garage, coal storage etc.) also influence the ground floor, through the heights differences of the stories along the north-south direction.

Symmetry-axes

The interesting aspect of the house Müller is the interaction, or the missing of an interaction, between the facade axis and the floor plan axis. As aforementioned there are two main symmetry-axis (I and IV). Namely the symmetrical axis I is identical with the facade axis I of the north facade, but not with the facade axis V of the south facade. There is a hop between these axis. This is very good recognisable in the ground floor plan. The entrance situation (the entrance niche) is symmetrical placed in the south facade according to the facade axis V, but asymmetrical in the ground floor plan. For the first look there is no relation

between the facade axis *V* and the floor plan, but Loos tried to connect this axis in the floor plan by placing the border wall of the staircase on this axis. He reflected this border wall at the axis *I* and got in this way the width of the stair. Due to this the hop of the to axis is 1/2 of the stair width. This dimension is also observable in the roof-attic-plan, where it is part of the measures of the skylight.

There are also axes in the rooms, like the axis *III*. It is the axis of the Hall. Loos supported the axis with 4 hollow corner pillars, which should underline the symmetry of the short walls of the Hall.

In the context of the axes it is also necessary to take a closer look back to the entrance situation. As aforementioned it is symmetrical situated in the south facade, but asymmetrical in the floor plan. However Loos realised, through an ably chosen entrance-motive (a tripartition), an entrance door which is exactly situated on the

symmetrical main axis *I*. He repeated this entrance motive at the rise for the first floor.

3.2.7 Spatial Plan

The idea of the spatial plan, which was described in the chapter 2.3, was after Loos's own words realised on its best in the house Müller. He said:

"...this spatial interaction and spatial austerity that thus far I have best been able to realise in Dr. Müller's house" Adolf Loos ²⁰

To make the spatial interaction in the house Müller easier to understand, we created a room-cast of the important rooms (Ill. 33). The room-cast shows that the dominant room of the house is the hall and assigned to her are the other rooms. The ground floor and the first floor are the really interesting levels for the intrinsic spatial plan (grey tagged in the axonometric projection). The reason for this is that Loos situated in the

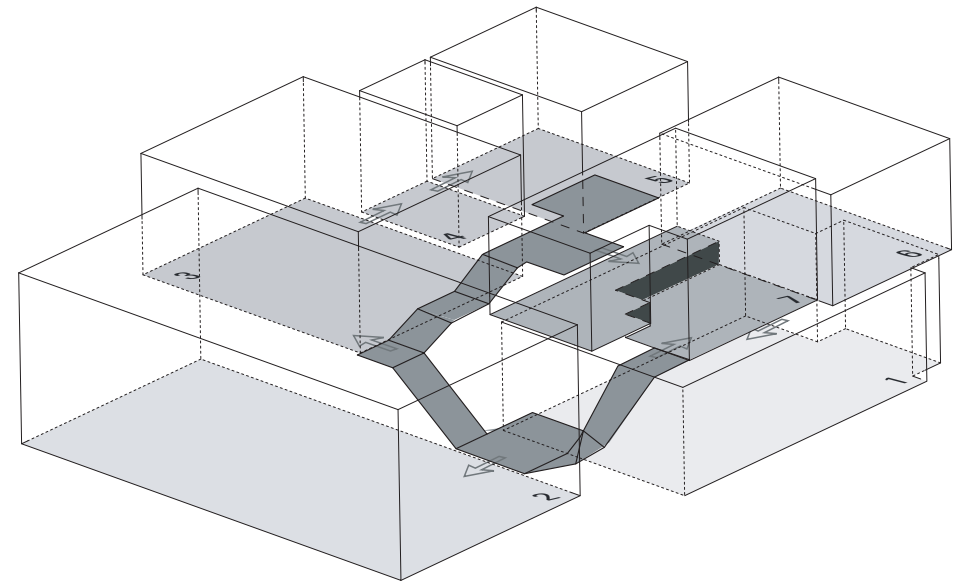
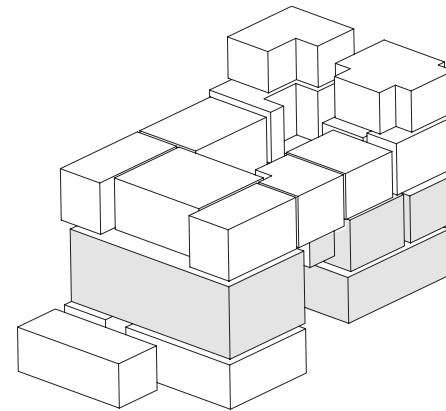


Illustration 33

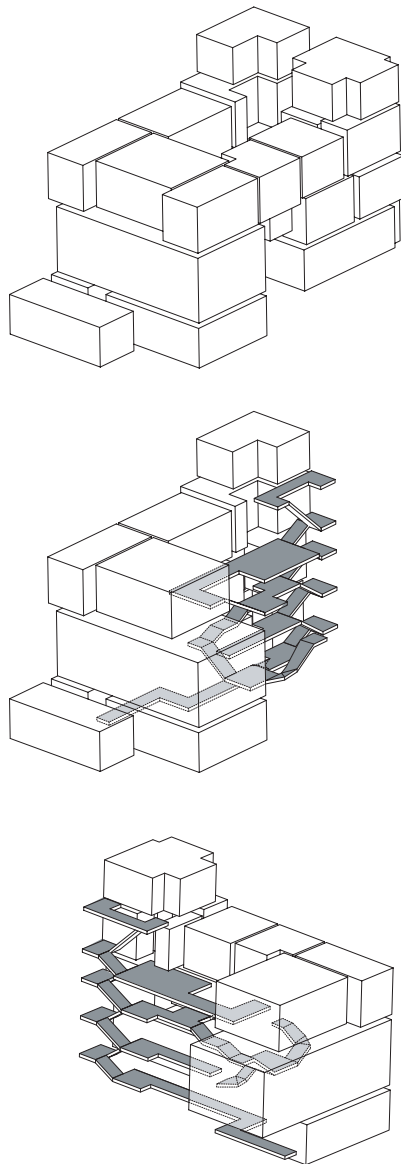


Illustration 34

second level only the private rooms, like the sleeping room, robing-room and the child's playroom. Rooms which have the same or similar functions. Based on his idea of the spatial plan Loos gave every room a height according to the function, so the height difference between the rooms (which leads to the interesting room sequences of the spatial plan) arise only between rooms of different functions, which is not given in the second floor. The vertical organisation from public rooms in the ground floor to the private rooms in the upper part of the house is typical for Loos.

In the ground floor and the first floor whereas, Loos placed rooms of different functions and designed them with different heights. Thus he generate a room sequence which starts in the entrance room (1) and continue to the Hall (2) with a height jump of 1,2 m. Compared to this hall there are the boudoir (7) and the dining room (3). Both rooms have a

lower sealing then the Hall, which has a height of approx. 4,5 m (the boudoir has in its upper part a height of only 2,1 m). So it is possible to say that two small rooms, and when you count also the entrance room three, are connected to one big room. Considering the loge theatre, which was according to Loos the original idea of the spatial plan, there should be an open connection between the small rooms and the big one to perceive the whole room sequence. Loos realised this open connection with the staircase and the penetrated walls between dining room, hall ad stair. (Cp. tour through the house)

The diagram of the room-cast in Illustration 34 shows exactly how complex the design of the vertical access system has to be, to guarantee the function of the room plan in the house Müller. According to the height jumps and the different room heights, Loos created two vertical access systems. One is continuous in the height and the other

not. The continuous system is placed at the south facade, and connects the house from the basement to the roof. The function rooms like the kitchen are linked to this system. The non-continuous access system is the important one for the spatial plan. It provides over platforms the access to the various rooms, which differ in height. Withal the height differences, Loos was able to manage that the continuous and the non-continuous vertical access system are always connected. This leads to the fact that some rooms like the boudoir are double developed.

As aforementioned are the border wall of the non-continuous coverage semi-transparent. They are designed as a column row (border wall of the hall) or have windows to the rooms (dining room).

Recapitulating it is to say that Loos realised his idea of the spatial plan with height jumps between the rooms, the variation of room heights and

by the use of a complex vertical access system. The in literature often mentioned confrontation of two high stories to three smaller stories in the house Müller, which should be characteristic for the spatial plan) is de facto not observable. Maybe a longitudinal section (Ill. 36) through the vertical access system could implicate such an organisation, but the third story in this section is only the death end of the access system and is named in the floor plan as pantry. Whereas another longitudinal section (Ill. 35) of the house shows a height movement of the rooms from north to south.

At last it is to say that the spatial plan in the house Müller is not recognisable at the facade of the house. Only the differences in the size of the windows indicate the different rooms with their various functions but not their height movement or their different heights.



Illustration 35

According to Julius Posener it is typical for Loos that the outside of the house and the internal structure differ, because Loos did not develop his houses from inside to outside. He always wanted that the cubature of the house is an integrated whole or a sign.

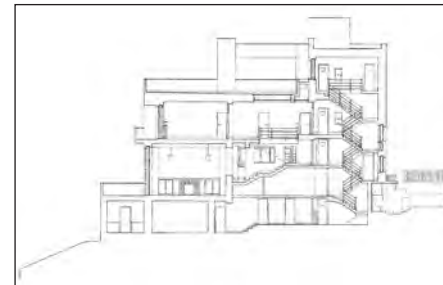


Illustration 36

Notes, Quotations and References

¹(Roland L. Schachel in: Rukschcio et al. 1989, p. 23 / Lustenberger, 1994, p. 12)

²(Lustenberger, 1994, p. 12), „Ausweg aus einer Situation ohne Perspektive“ & „Verzicht auf eine akademische Ausbildung“,

³(Roland L. Schachel in: Rukschcio et al, 1989, p.23), „Emanzipationsphase“,

⁴(Lustenberger, 1994, p.13) „schrittweise Loslösung von den (bisherigen, durch den Besuch einer europäischen Kunstgewerbeschule geprägten, A.d.A.) ästhetischen Sehgewohnheiten“,

⁵(Glück, 1962, p. 15) „mitleidige Lächer!“

⁶(Safran; Wang; et al. 1985, p.15)

⁷(Richard Neutra, Auftrag für Morgen, Hamburg, 1962, p. 179 f.) „die durch irgend eine vitale Kraft in diesem Lande verändert wurden“,

⁸(ibid.) „in jenem Vorgang der Entrümpelung“, „historischen Vorurteilen, die in der überalterten politischen Geographie ihr Blut schwer gemacht und vergiftet hatte“; ibid.

⁹(Glück, 1962, p.16) „Die scharfe amerikanische und englische Luft hat alle voreingenommenheit (...) von mir genommen. Ganz gewissenlose Menschen haben es versucht, uns diese Zeit zu verleiden. Stets sollten wir rückwärts schauen, stets uns eine andere Zeit zum Vorbild nehmen. Wie ein

alp ist es von mir gewichen. Jawohl, unsere Zeit ist schön, so schön, dass ich in keiner anderen leben wollte.“

¹⁰ e.g.: (Eduard F. Seckler in: Rukschcio, 1989, p.257)

¹¹(ibid.)

¹²(Glück, 1962, p. 65)

¹³(Glück, 1962, p. 18) “drawing-table-dilettantism“

¹⁴(Glück, 1962; p. 65), „Die Schönheit nur in der Form zu suchen und nicht vom Ornament abhängig zu machen, ist das Ziel, dem die ganze Menschheit zustrebt“

¹⁵(Glück, 1962; page 65), „Je tiefer ein Volk steht, desto verschwenderischer ist es mit seinem Ornament, seinem Schmuck“

¹⁶(Frampton, 1992/2003; p. 93)

¹⁷(Glück, 1962, p. 277), „evolution der Kultur ist gleichbedeutend mit dem Entfernen des Ornamentes aus dem Gebrauchsgegenstand“

¹⁸(Glück, 1962; p. 277), “das Lallen der Malerei“

¹⁹(Frampton, 1992/2003; p. 96)

²⁰(Adolf Loos: Shorthand record of a conversation in Plzen (Pilsen), 1930)

²¹(Posener, 1980, p.36 f.)

²²(Lustenberger, 1994, p.36, see Adolf Loos, Josef Veilich: Trotzdem, Innsbruck, 1931, p.188), „Lösen des Grundrisses im Raum“

²³(Lustenberger, 1994, p.37) „den Aufenthalt in den engen und niedrigen Logen und Galerien nur deshalb ertragen könne, weil diese in einer offenen räumlichen Beziehung zum großen, durchgehenden Hauptraum stünden“

²⁴(ibid.) “man also durch die Verbindung eines höheren Hauptraumes mit einem niedrigerem Annex Raum sparen kann (...)“

²⁵(see Posener, 1980, p.38) „horizontalen Raumschichtung“

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Illustration 3	GRAVAGNUOLO, Benedetto: <i>Adolf Loos – Theory and Works</i> : London, Art Data, 1995, ISBN 0-948835-16-8, S.90 right image
Illustration 4	RUKSCHCIO, Burkhardt; et al. : <i>Adolf Loos – Katalogbuch zur Ausstellung Adolf Loos</i> : Wien, Graphische Sammlungen Albertina, 1989, ISBN 3-85409-165-6, S.254
Illustration 5	http://ourworld.compuserve.com/homepages/WernerLane/karosserie.htm
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Illustration 14: siteplan	KLEINMAN, Kent; DUZER, Leslie van: <i>Villa Müller – A work of Adolf Loos</i> : New York, Princeton Architectural Press, 1994, ISBN 1-878271-81-4
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