

Some thoughts on plans...

By Henri T. de Hahn

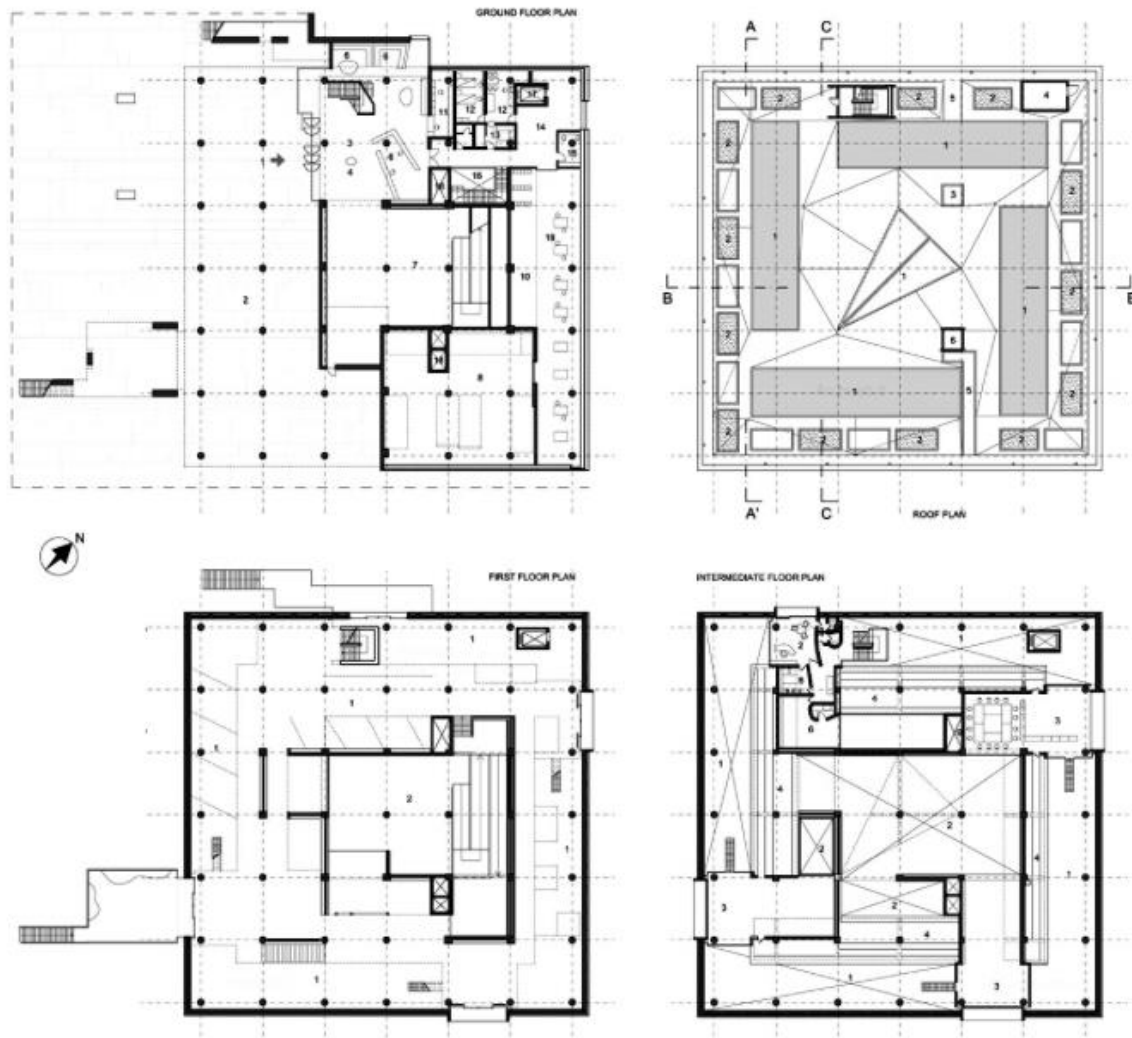


Image 1: Google Images -National Museum of Western Art in Tokyo, Le Corbusier, completed 1959

“Plan is a conceptual tool, a two-dimensional diagram or notational device, with limited capacity to express the perceptual elements which exist in three-dimensional space. It is only by a synthesis of the conceptual plan with the perceptual elements of architecture that the value of the three-dimensional experience of a building is understood.”

Michael Graves, Lotus No. 22, 1979/I. p. 5

- Plans (horizontal floor sections) represent drawings at the horizontal sectional cut and are not an illustration of multiple plans (floor levels) overlaid over each other. The latter may be a wise process to cross-reference how each floor plan works with the other, but when presenting plans, one isolates each floor individually for clarity of reading. Also, because, plans in the professional world become legal documents for construction, thus should show no ambiguities.

- This means that you may wish to organize them in a presentation format from the ground floor plan up –which for the first-floor plan typically showcases the relationship with the immediate outdoor landscaping, then the floor plans below grade, followed by the floor plans above grade. I suggest that plans are defined by either numbers or by floors, i.e., plan 1; plan -1; plan -2; plan 2; plan 3, etc.... or ground plan; basement; first, second, third floor plan; and roof plan, etc.
- The choice is up to you but be consistent in your nomenclature. If you have plans that only are from the ground floor up, one typically sets the ground floor at the bottom of your presentation, and the upper floor plans above each other stacking them like a deck of playing cards with space between each so they may be read independently and clearly, but aligned so they may be interpreted together as a whole.
- Plans can be show at a variety of scales but for second year projects, scale $\frac{1}{4}=1'-0"$ is typical. This means that each plan showcases a number of information that pertain to the scale of the plan. Scale $\frac{1}{16}=1'-0"$, $\frac{1}{8}=1'-0"$ show less information and more conceptual thinking, while scale $\frac{1}{2}=1'-0"$ etc., will show more detailing as needed (i.e., the indication of the spacing of the window mullions versus a simple line indicating glass).

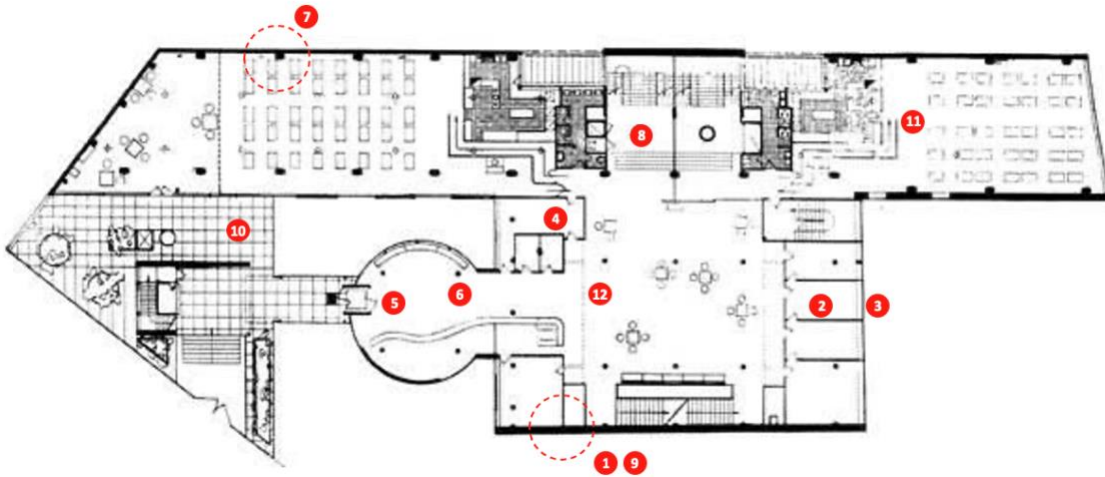


Image 2: Google Image -Salvation Army by Le Corbusier with numbers (author's collection)

- Each plan should illustrate all the necessary information of the project at the horizontal sectional cut, which is typically around 3'-0" above floor level. Let me reiterate "at the horizontal sectional cut." This means that the plans shall give a clear reading of the horizontal arrangements and patterns you have envisioned for your project and their relationships to the immediate exterior. When you draw a wall **1**, this means it is either a structural element or a non-loading **2** element based on its thickness and representational attributes.
- Either way, you are suggesting that there is no spatial/visual relationship between the inside and the outside, inside and inside or and vice versa (although partition walls can be transparent). When you draw an opening –a discontinuity within the wall system– you are suggesting that there is a visual (window) **3**, and/or physical (door) **4** relationship between two or more spaces (inside and outside). For example, a door's physical attribute is to connect spaces; the door's architectural attribute is to define that relation as a threshold, a passageway, a permeable boundary, a transition, etc. **5**. Each of these attributes –from the mundane to the poetic, are defined through specific tectonics that you establish to enhance how to give meaning to this passageway. It's easy to create a hole in a wall, but how one celebrates passing through that opening is more complex. While there are no right or wrong solutions, aim to find the *juste* (appropriate) solution and not simply a solution or a *new*

solution!

- When you draw a plan, you will need to show everything that is in the horizontal sectional cut - walls, columns **6**, pilasters **7**, openings (windows and doors), stairs **8**, etc. This information is expressed by either by darkening everything between the two lines –a technique that is called *poche* **9** that comes from the Ecole des Beaux-Arts. This technique establishes a figure-ground relationship between solid and void, between the bounded and non-bounded spaces of your plan. Many of you call *poché* a shaded area! Depending on the scale of your plan, or simply your aesthetic sensibility, you may want to emphasize the cut elements of your plan by darkening them to render them as solid matter or simply give more line weight to the two lines defining what is cut. However, it is tradition that any *poche* takes place at scales under $\frac{1}{4}=1'-0"$,
- When drawing a plan, one needs to show what is seen when you look down at the floor that you are representing –i.e., the stairs that lead to another floor below, the floor pattern **10**, the bottom of a tilted wall, furniture **11** etc. Of course, what matters here is the information that you deem important to complement your horizontal sectional cut, to give it a life and how furniture complements the spatial intentions. It is important to be mindful that what is seen below the horizontal sectional cut, is also a matter at what scale when you draw your plan. For example, you would not show a tiled floor pattern at $\frac{1}{8}"$ scale because it would be too small to include and become a little messy when printing the plan.
- Finally, if the plan shows all the information that is relevant in the horizontal sectional cut AND what you see when looking down at the floor, one typically also represents what is directly above the horizontal sectional cut. For example, one would show the axis of structural beams **12**, the vertical continuity of circulation, a cut out in the ceiling, etc. This information is expressed through dashed lines.
- In short, always be mindful to correctly show all information within the horizontal sectional cut, what is seen below, and what is suggested above with the appropriate line weights and dashes.
- While the above points are about correctly representing a plan, the plan is ultimately about representing architecture. This will create a rich drawing that is a mental map of how function, form, geometry, shape, size, and hierarchy of each inside and outside spaces work within the greater whole of the general ideas and poetic intention(s) -i.e., a school is not simply an arrangement of classroom (functions) but could be understood as a place for self-education (program). The plan—correctly drawn— shows the structure, the connections between interior spaces as well as between the interior and exterior. The plan shall therefore include the immediate context to understand those relationships **13**.
- Again, as a reminder, and in general, plans are cut by an imaginary intersecting plane at $3'-0"$ - $4'-0"$ height above the corresponding floor through all vertical elements (walls, columns, windows, openings, stairs, etc.). These cut elements will be drawn with a heavier line, while all other elements below the plane of the cut, will be drawn in lighter line weight (floor, counters, and tabletops). Anything above the sectional cut, such as beams, circulation, etc. will be in dashed lines. Particular attention should be given to the correct representation of stairs and ramps, as they will typically indicate which floor plan you are representing.

Note 1: Each plan is typically oriented so that up is closest to true north **14**. Understanding the sun's orientation is to define the quality of light to give to all spaces. In a similar fashion to the site plan and for a "typical" presentation of your plans, the layout of the plans will either align vertically above each other (lowest level at the bottom and rise to the highest level at the top) or horizontally next to each other (lowest level to the left, highest level to the right). This alignment makes it easier to read and understand the relationships between the plans. The ground floor plan shall extend out to include adjacent outdoor spaces and features while the upper level plans

shall simply show the plan with no or little exterior reference. When the site is sloped particular attention shall be given to the horizontal sectional cut as it relates to the changes in topography.

Note 2: Include on each plan a North arrow, the scale of the drawings, title nomenclature of the plans (i.e.: Plan 1) **15**, with any indication of a sectional cut through arrows on either side of the plan which point toward the direction of the cut view. If the plans are numbers, please use letters for the sectional cuts to avoid confusion.

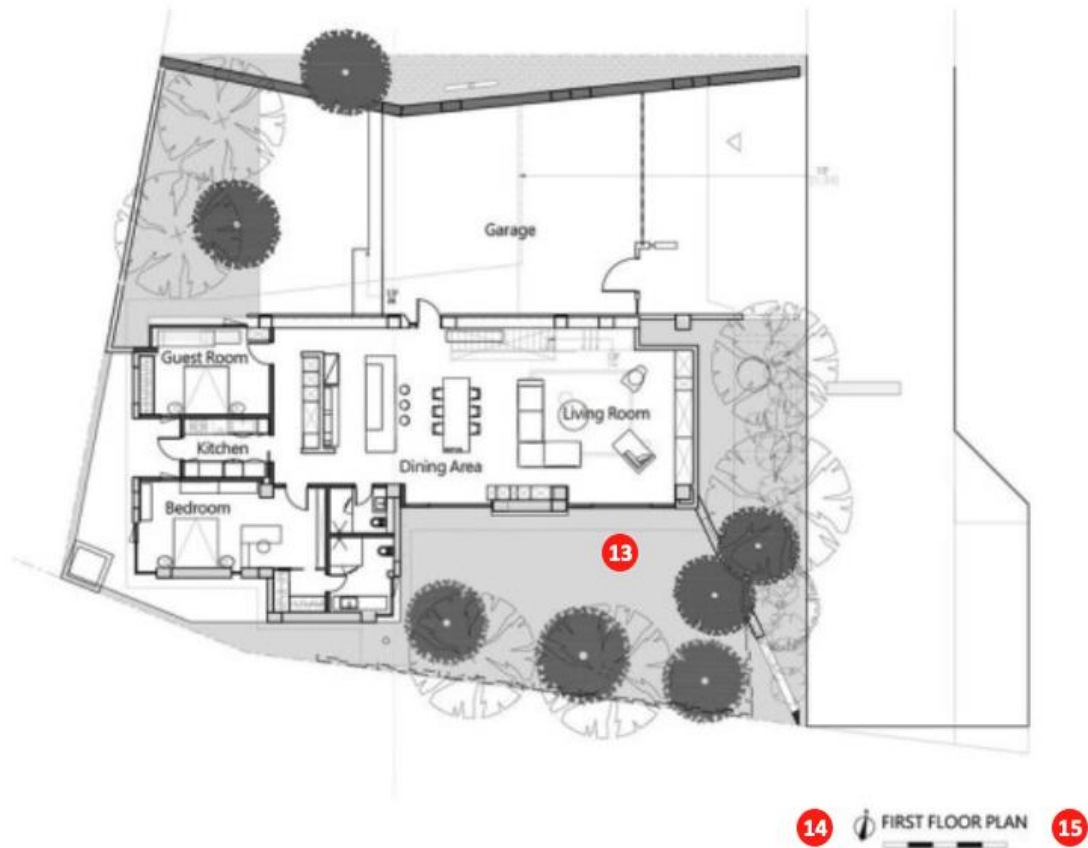


Image 3: Google Images -unknown plan with numbers (author's collection)