

FLAT HORIZONTAL PLAN

On horizon

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The flat horizontal Plane, the platform, is more than just one of the most basic mechanisms of Architecture. In this essay, I would like to further our understanding of this Flat Horizontal Plane not only as the primary mechanism of Architecture, but also, in situ, as the spatial limit between the stereotomic and the tectonic.

Standing before Rembrandt's beautiful 1655 drypoint engraving, *Christ Presented to the People*, I once pondered how the strokes produced by the hand of the great maestro bring to the fore the central horizontal line which functions as the base of the composition's construction. The upper plane of the stone platform, upon which the action of the scene transpires, is placed at such a height vis-à-vis the viewer's visual perspective that it becomes a line. That horizontal line is so perfect that one could say that Rembrandt used a ruler to draw it. Or indeed that he had a perfectly steady pulse.

Rembrandt clearly takes inspiration from an earlier engraving by Lucas van Leyden. However, Leyden's perspective is set higher, more at a bird's eye view, so that the main plane is seen as a trapezium. Once again Rembrandt, the maestro, shows his clear wisdom and skill in the precise handling of spatial mechanisms.

On the other hand, the double terminology that Holy Scripture employs for this place, *Lithostrōtos* or Gabbatha, is very expressive. *Lithostrōtos*, as its Greek root *litos* indicates, means "stone floor"; in Spanish it is called "enlosado," or tiled with stone. Moreover, in Hebrew Gabbatha means "a raised place," so that between the Greek and Hebrew terms, the rostrum or platform had this double meaning: raised on high and made of stone. Here one can observe the same operation, with other dimensions, that one sees in the Acropolis of Athens.

Indeed if Rembrandt borrowed from Leyden's form, correcting it with the perfect horizontal line at eye-level, Picasso in his *Ecce Homo: Le Théâtre de Picasso* also borrows from Rembrandt's form and in his very free version conserves the horizontal line from the edge of the top of the pavement, of the Gabbatha, exactly at eye-level. And as with Rembrandt, the line is so horizontal that it seems, or is, traced with a ruler.

It is curious how both geniuses coincide, with astonishing premonition, in their perspicacity of understanding the transformation of plane to line at eye-level. This was something Mies van der Rohe was to later use in such a defining manner in his Farnsworth House.

A contemporary architect will immediately recall now what Mies van der Rohe attempted and achieved when he placed the ground floor of Farnsworth House at eye level: the plane became a line in front of the viewer, making the house appear even lighter.

So, this is what I wish to explore here: this flat horizontal plane, that of Rembrandt, Picasso and Mies, understood as the limit between the stereotomic and the tectonic world.

It is significant that Jorn Utzon in his well known text *Platforms and Plateaus* begins by saying that:

The platform as an architectural element is a fascinating feature. I first fell in love with it in Mexico on a study trip in 1949, where I found many variations, both in size and idea, of the platform, and where many of the platforms are alone without anything but the surrounding nature.

So it comes as no surprise that the platform, the raised flat horizontal plane, was the central theme of many of his buildings. The idea of the flat horizontal plane is so definitive in architecture: it is an idea of yesterday, today, and tomorrow. The horizontal plane puts man, standing on the ground, in juxtaposition to the physical sky thanks to the very gravity on which the human body depends for all of its functions; man has a maximum sensation of balance on the absolutely flat horizontal plane. Furthermore, as this plane is the dividing line between these worlds, the plane is also where they, the tectonic and the stereotomic, come together.

Curiously, Spain's Royal Academy of Language and Letters defines a flat surface as "that which is situated in a position parallel to the horizon, in the lower part of a painting". Moreover, it defines the horizontal plane as something "defined by the surface of a liquid in a state of rest". I say 'curiously' because it uses an unstable physical situation, that of "liquid in a state of rest," to define what is really a stable physical situation, in fact the most stable of all: the built horizontal plane.

In his book *Studies in Tectonic Culture*, Kenneth Frampton aptly analyzes, on the basis of profound and extensive commentaries on Utzon and his work, the validity of the platform as a universal architectural mechanism.

Likewise, in *The Establishment of Architecture* I too presented a heated defense of the horizontal plane, giving all kinds of arguments that in one way or another stemmed from the analyses of Utzon and Frampton. In that text, which is, in some way, a continuation of an earlier essay, I insist upon those arguments and explain how I have radically materialized them in some of my latest projects.

I should like, once again, to emphasize how theory must accompany practice in architecture. It's not a matter of drawing designs, building them and then, like a ventriloquist, lending them a voice. On the contrary, I would like to demonstrate something that is fundamental to artistic creation, and even more so to architectural creation: that constructed works are the synthesis of an extended and anterior process of deliberate thought which, in connecting with past history, constructs future history. This rational-artistic process could be considered "true research."

Kenneth Frampton reconsiders and gives life to some of the forgotten theories of Gottfried Semper; his distinction between the Stereotomic and the Tectonic in architecture is especially brilliant: the Stereotomic, on the one hand, refers to what is heavy –gravity-bound, immobile, unitary, and continuous– while the Tectonic refers to what is light – mobile, fragmented, and discontinuous. Frampton could not have imagined

the extent to which new architecture could be generated from these ideas he brought to light. For my part, I owe their discovery to Jesus Aparicio, who after his stay as a Fulbright scholar at Columbia University, presented them in Madrid, and later included them in his marvelous book *El Muro*, [The Wall].

THE HORIZONTAL PLANE: BOUNDARY BETWEEN THE STEREOTOMIC AND THE TECTONIC

It is my intention here to go one step further and consider the flat horizontal plane as the materialization of the boundary between the tectonic and the stereotomic.

When man establishes the horizontal plane, he is doing something more important than just satisfying a physical need for stability demanded by the universal laws of gravity. When primitive man settles and takes possession of a place, the first thing he does is construct the flat horizontal plane. Or he looks for places that are already flat, and afterwards they are shaped, fenced in, and delimited. The plane is the earth itself, clearly a stereotomic plane.

Furthermore, when he builds the horizontal plane with elements that are light, and makes it mobile, he is doing something even more profound: he is raising himself over the earth in order to dominate it. With the construction of the mobile, floating, already tectonic horizontal plane, he achieves mobility and, what is more important, he gains freedom. The hut becomes a sign of freedom as opposed to the cave.

When Mies van der Rohe builds his Farnsworth House, he is performing an act that goes far beyond merely making a truly beautiful, light, and transparent house. As an architect, for the first time in the history of architecture, he is consciously setting the flat horizontal plane floating in the air. This feat is absolutely key to the operation.

Given the self-evident perspicacity of the operation, it is not easy to explain why this has not been more generally repeated by later generations of architects. Not even Mies himself did it again.

There are echoes of all this in Adalberto Libera's Casa Malaparte where he proposes to establish the upper horizontal plane as the central plane of the life of the house, as the beginning or end of a stereotomic podium. As if it were a small acropolis. Nothing that radical was ever repeated, either by Libera or any other architect. The flat horizontal plane, naked, radical, pure, as the primary plane of Architecture.

ADDENDA

De Blas in Madrid, Olnick Spanu in New York and Rufo in Toledo are all houses of mine with a stereotomic podium aimed at achieving the construction of the horizontal plane on which the tectonic piece is built.

The same exercise was employed in the Entre Catedrales project in Cadiz, in the Center for Landscape Interpretation in Lanzarote, and in the House in Tarifa but perhaps in an even more radical way.

None of these cases involve a flat rooftop exploited for other purposes, or used for landscaping. Nothing could be further from the truth. As Utzon so astutely observes in the final paragraph of his text: "To express the platform and avoid destroying it is a very important thing, when you start building on top of it. A flat roof does not express the flatness of the platform."

Speaking for myself, from the very outset I had no doubt that the flat horizontal plane must take the lead role, as the most central guiding idea. If in my more recent projects any emerging element has been eliminated from their design, this was not done for reasons of either purity or so-called minimalism. On the contrary, the spatial force of this horizontal platform facing nature is such that any emerging element could distort it. It is a flat horizontal plane between the stereotomic and the tectonic, between heaven and earth.

It is clear that this is only possible in places that, on the one hand, have a landscape with a distant horizon that renders this operation meaningful, and moreover, that enjoy a climate that permits the intended activity in a space that is open to the sky. In all of these cases, in these three projects, the distant horizon is the line of the Atlantic Ocean and all three locations enjoy a privileged climate.

THE THREE PROJECTS

The first of these three projects, in Cadiz, the so-called oldest city in the West, is called Between Cathedrals. We were asked to “cover an archeological excavation,” and give the city a public space. To do so, we made something more than just a flat roof. We made a raised flat horizontal plane, paved in Macael white marble, to which we built a ramp for easy access, also placing a white canopy on it to give it some shade. Embraced by the two cathedrals, the raised platform blocks the view of the cars passing in front of it and we are left to contemplate the sea alone, in an effective operation of abstraction. The immense Atlantic Ocean lies before us, nothing more and nothing less. This is a plane that clearly belongs to the tectonic world.

The building in Lanzarote is situated at the center of the hills that surround the Janubio salt flats that open to the sea. Right in the center, at the highest point, stands a large, square, flat horizontal plane, measuring 90x90 meters. This plane is black, just like the lava found throughout the island, and capable of underlining the fascinating landscape, endowing it with spatial value. An entrance is dug out in the plane as a “trench” and courtyards that serve as an extension to the interior within. The shade produced by these excavated spaces gives the operation still greater force. This plane clearly belongs to the stereotomic world.

And the same is true of Tarifa House in, Cadiz, also in a raised location, in fact on a coastal dune facing the ocean, which rises up as a square flat horizontal plane, measuring 20x20 meters, and made of travertine stone. Here once again we are looking out to sea, highlighting and accentuating the seascape before us.

In each of these three cases, the geometry adopted, open to all four directions, further clarifies the proposed spatial emphasis. This is especially true when they are open to the west, to the sunset and the Atlantic Ocean: our line and the horizon of the sea in parallel.

And as I mentioned before, the climate in these places is perfect for these arrangements. The azoteas, or roof terraces, have traditionally been common living spaces in these island and coastal areas. A few well-known Le Corbusier photos come to mind.

I still remember when, as a child in Cadiz, we used to run across the azoteas at home while the women chatted calmly in that privileged, open-sky living room from which we saw the sea and the sunsets. Time there was always suspended.

A radical, flat horizontal plane of this sort will, without any intermediate element, exaggerate the spatial qualities of these places I’ve described with their far-off horizons. The distant landscape in front of us, in this case the sea, seems to be coming towards us since it is accentuated by the line of our flat horizontal plane; or it seems that we, as if riding on Aladdin’s magic carpet, are moving towards it. It provides the perfect setting for activities such as sunbathing or relaxing next to the pool, or seeking out the trenches to shelter from the wind.

And in order to understand how it is perfectly possible to carry out the activities described above on a flat, radical and bare horizontal plane, it helps to imagine it like the deck of a ship. Standing on a flat horizontal plane is like standing on deck under the open sky, or on a raft, as Mies van der Rohe claimed when speaking of his Farnsworth House.

Unlike previous projects, in which the horizontal plane appeared with an element built on top of it to house practical functions, I believe its further development ensuring that it becomes the main plane truly constitutes a contribution to Architecture: the construction of the radical flat horizontal plane.

In each of the cases mentioned, the raw materials used in their construction –the super-white marble in Cadiz, the black concrete in Lanzarote, and the sand or travertine in Tarifa– contributed effectively to the spatial dominance of the horizontal plane.

CONCLUSION

In short, we must defend the flat horizontal plane as the limit between the stereotomic and the tectonic worlds. Well-defined in proportions, dimensions, and materials, it remains one of the most basic mechanisms of Architecture since time immemorial.

According to Utzon, the operation that the Indians sought by raising their platforms to overlook the jungle in the Stone Age so that “they could commune with their gods” continues to the present day: the search for happiness, in our case, through Architecture.