ON THE MEASUREMENT OF IDEAS

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ON THE MEASUREMENT OF IDEAS

Ideas in architecture have measurements

If someone says that an idea has dimensions, they will be thought to be out of their mind. How can ideas, thoughts, have dimensions? Well, in architecture, in order to be built, ideas need to have measurements, dimensions. And they will only be effective when the measurements are precise and adequate to make these ideas come to light.

MEASUREMENTS OF LIGHT AND GRAVITY

Like all creative work, architecture needs ideas to support it. But either these ideas are capable of being translated with the materiality that is proper to architecture, or they will only be empty ideas. And in the same way that we defend that architecture is a constructed idea, we must understand that this transformation of ideas into matter must be done with precision. That is why we talk about the measure of ideas, that these ideas can be effectively translated with concrete measures.

And always, of course, as far as measurements are concerned, with man at the centre of the question with his three dimensions. It is not in vain that architecture is for man.

We have repeated many times that GRAVITY, its control through the load-bearing elements, the structure, is the material basis that orders the architecture, that builds SPACE.

Nor have we tired of insisting that LIGHT, the dialogue with it, its dominance through its dialogue with the material elements that make up the form, is the material that tensions this space built by GRAVITY.

GRAVITY builds SPACE and LIGHT builds TIME.

It will then be necessary, through the adjustment of their measurements, to TEMPERATE these spaces and these times by dimensioning them, proportioning them, giving them scale, in short, putting them in relation to man.

In the end, it is necessary to build with shapes defined by three dimensions. With proportions, the control of which will be given by the precision of the measurements. In the same way that the calculation of the structure ends up in something as concrete as its precise dimension.

It is necessary to know the MEASUREMENTS with which the architecture is to be erected.

There are functions that are possible with one size and not with another. Even if the shape and proportions were correct.

There are constructions that are possible with some dimensions and not with others.

There are LUZ issues that are effective with some measures and not with others.

What are the plans of an execution project, the essential document for building, if not a sum of a thousand measures that try to define in detail the greatest number of aspects that concur in it?

In short, it is about mastering light and gravity by defining them with precise measurements. Because IDEAS in architecture have MEASUREMENTS that are based on those of man and the world.

MAN'S MEASUREMENTS

The starting point of architecture is man as a corporeal and heavy being. And his capacity to create, to have ideas and to build them. These architectural ideas must be constructible. We must know how they are built, how they are designed, their geometry, their composition. And how they are erected, their construction. The construction depends on the layout. The physical how depends on the geometric how. The geometric how is expressed through measurements, dimensions, numbers. And these measurements always relate to man.

The architect can create proportionate spaces by relating the elements of which they are composed to each other. By seeking the internal proportion of the forms with which he works and as soon as he introduces his relationship with man, the centre of all architecture, he radically changes the situation.

Man's relationship with his universal measures, with space, with the forms that make it up, is a relationship of numerical distance. Of the measure of things. And in order to be able to work on architecture, it is essential to have a better knowledge of measurements and their effect on man.

Just as the basis of man's relationship to the music emitted by a violin will depend on the distance to the violin and the power of the emitting instrument, so will his distances from architectural elements. The sound of a violin heard at too great a distance can be lost and be ineffective. And if the distance is too small, we can end up strung on the violin's bow.

And just as in music, it is above all the sense of hearing that brings it into relationship with man, in architecture it is primarily sight that enables this relationship. Although all the senses also contribute to it. That is why LIGHT is the great protagonist of architecture.

And so it is the architectural confines capable of exerting an effective influence on man that must be mastered by the architect.

Confines that Heidegger well defined as the "limit from which a thing begins to come into presence".

WHEN MIES VAN DER ROHE SLIPPED THROUGH THE OCULUS OF THE PANTHEON ABOARD THE FARNSWORTH HOUSE

Because Mies Van der Rohe was German. And if he got an idea into his head, there was no one who could resist him.

And one fine day when an American student objected to him about the accuracy of the dimensions of his Farnsworth house, he replied, in a moment of inspiration, that his house could fit through the oculus of the Pantheon in Rome. What's more, he invented, turning the story on its head, and the student believed it without flinching, that the architect of the Pantheon had made the oculus using the measurements of the master's Farnsworth house as a guideline. And so the unimaginable happened.

It was in the spring of 1964. Two months before his mythical trip to Spain. All the architecture students in the world were waiting expectantly in front of the double screens of their schools.

On the first screen, in direct connection with Rome, the Pantheon. So often studied and admired and even visited. They were well aware of its history that they had been told so many times. How the bronze of its portico had been sacrificed by Bernini for the sake of its splendid baldachin. And how Velázquez himself had exhibited there, in the Pantheon, the incredible portrait of his servant Pareja with which the Academy of Saint Luke could not refuse to accept him as a member. And they also knew, because they had read it in Adriano's memoirs by M. Yourcenar, that "the disc of the day rested there like a golden shield". It was clear to the architecture students that it was a grandiose space. So large did it seem to them that, by contrast, they thought seriously about the smallness of the oculus through which the sun cast that golden shield. And they deduced that it was the smallness of the oculus that made it seem so grand to them, that enclosure of universal beauty. The Pantheon always served as a reference point. The only thing they did not know, no one had ever told them, nor had they been too interested in it until now, was its exact measurements.

On the second screen, in direct connection with outer space, the Farnsworth house flew swiftly and serenely through the air. Chairs and all. And above all and above all, Mies Van der Rohe himself piloting such an architectural vessel. Sitting in his Brno chair upholstered in black leather, he was smoking a cigar that a bullfighter couldn't skip. He could be seen enjoying directing the space artefact which, floating, floating, or so he said, was triumphantly travelling through time and space. It was not for nothing that it had taken more than six years for its precise conception and perfect construction. The students knew all about the Farnsworth House. They knew how to apply to Palumbo for permission to visit it. Almost all of them had done it. Some of them had even waded across the Fox River to access this spatial marvel when, lately, permits were more difficult. What they knew less, because they gave less importance to it, were its exact measurements.

The incredulous Architecture students of that precise subject they thought so diffuse, had been told that Mies Van der Rohe (too old, too classic!) intended to land with his

ship-house in the centre of the spherical Roman space. Those students thought it would be a glorious scene, worthy of a good "blade runner" when the light spaceship, pure tectonics, broke the heavy structural mass, pure stereotomy of that archaic construction. It would mean something like the triumph of the new architecture over the old. Or so they thought, at least, because there was no doubt in their minds that it would crash. For how could a house so magnificent and so magnified, so big, fit through that little oculus through which the sun entered the Pantheon?

The two systems of coordinated monitors worked multiplied by a thousand through the thousands of screens that flooded, presiding over them, the foyers of all the Schools of Architecture in the world, in expectation of such an event. The revolutionary moment was imminently approaching.

And then came the H-hour. And then the miracle happened. The paradigmatic Farnsworth House, piloted by Mies Van der Rohe, passed flawlessly through the small oculus of the Pantheon without touching or staining it. Everyone breathed a sigh of relief. And everyone broke into wild applause. With cheers for Mies, for Adriano and for Architecture. Because it was architecture, for the sake of measurement, that was the cause of that prodigy, which was nothing more than the simple and exact knowledge required of any architect, precise knowledge of the dimensions of things. Mies, precise as he was, knew it well.

The dimensions of the Pantheon with its 43.5 metre diameter inner sphere and the 9.5 metre diameter of its oculus disc make it perfectly feasible for the 9 metre wide Farnsworth House to fly through that divine orifice without any problem.

In short, how good it would have been for those students of architecture, and for these students, to know the measure of things. So as not to have any surprises. Neither as good as the one described, nor as bad as the ones that fill our cities. To understand that architecture is the precise, measured and exact translation of those ideas that someone might believe to be excessive and confused. That architecture, which is always material, needs, because all matter has a measure, someone to define it with precision and efficiency. And that someone is the architects, who must know the measure of things well.

Students of architecture, who know well the measurements of their rooms, their classrooms and their school, could then be asked to use their imagination. And to go into famous buildings, known only through books, in order to arrive at a precise knowledge of their exact measurements. They would then discover that Gunnard Asplund, emulating Mies's story, flying on the wings of his Stockholm Library, would be able to fit his great cylinder, if he could reach Granada, into the cylindrical void of the beautiful Renaissance courtyard of the palace of Charles V.

In any case, it would not be a bad conclusion to this whole story if all architecture students, and all architects, always carried a tape measure, or that small modern instrument capable of measuring by means of light or sonic beams. And a compass and a plumb line, which, far from being antique, are, like light and gravity itself, eternal issues.