

THE ARCHITECT WHO WANTED  
TO CAPTURE THE CUBE  
Dimensions in Architecture in  
Relation to the Dimensions of Man

## Introduction

I propose this reflection on the cube, using the literary form of a story, in an attempt to communicate the importance of the measurements of the elements making up the architectural space by using its simplest form: the cube.

The fascination the figure of the cube has held for architects throughout History comes not only from the clarity of its geometry, but also from its perfect relation to the human being in a physical sense. It has a front and back, a right and a left side, an above and below. Four walls, a roof and a floor. As simple as that.

The architect saw it clearly. He wanted to master space and with it architecture. And he thought that this would be possible if he could only control the form and dimensions of the architectural space. And then he wanted to understand what this space was and what it was like.

So he placed himself outside of the cubic form, in front of a cube that was somewhat larger than he was. The great squared vertical plane seemed to overpower him. He walked to the corner and the two, vertical orthogonal planes impressed him with their force. But he wanted to be the one controlling them. He imagined that he moved away into the distance. He knew that the cube was formed by six planes and he only saw two. And while he knew that there was a plane up there above him, on the roof, that formed a trihedral with the two planes that arose before him, he had no way of seeing it. He climbed up onto a tree in front and from there he could finally make out the three planes.

Surely it's just a matter of dimensions, he said to himself and he looked for a cubic figure that was somewhat smaller than himself in an attempt, or so he hoped, to be able to control the entire space. Proudly, he discovered that in a single glance, he could take in the three faces that formed the trihedral. One side more than at first. But as he walked around the cube trying to capture a fourth side, one of the others disappeared. After multiple turns around the cube that ended up making him dizzy, he figured that he would never succeed in seeing more than three sides of the cube at a single glance. And it was not easy for him to calm down.

Surely it's just a simple matter of dimensions, he said to himself once again, just like the first time. And he looked for an even smaller cubic figure. He held it in his hands and said to himself that now he had dominated it, since all of it fit into the palm of one hand. And he continued his game. He raised it, lowered it, turned it around, but no matter how many times he turned that

form, he couldn't capture it. He never managed to see more than three sides at one time. And he knew that it had six.

Thus, in front of the three cubic figures, the large, the medium and the small, he sat down, desperate, and reflected on his impotence. He would never be able to control space!

And he thought and he thought and he thought when, exhausted, he fell asleep. And suddenly, he saw Alice by his side. She took his hand and led him up to the large cubic figure and, through a small hole, she knew it well, and they entered inside. There, the architect saw that at last he could take in up to four planes at the same time and even five, if he stood with his back against one of the vertical planes. And even up to the six planes if he put himself in an angle, diagonally.

Suddenly, the light that was bathing the inner space, which he hadn't paid any attention to and hadn't noticed where it came from, disappeared and everything remained in the dark. That powerful sense of dominating the space disappeared. And he was disconcerted. Alice smiled at his side. Once the eclipse passed, the light returned. And with it, his senses awakened once again and the architect recovered his domination of the space.

He looked up to see where that light had come from and he woke up under the rays of a powerful sun, without Alice, who had stayed behind in his dream. And now, back in reality, he found himself again in front of those cubes that had given him so much trouble.

The architect concluded, once fully awake, that Architecture, the domination of space, is a simple matter of measurements, of controllable dimensions, to be put into relation to the dimensions of man. He also concluded that it was a matter of light, without which architecture was nothing.

#### Postscript

As if an exercise on the above reading, try to draw the volume and space of the cube described, from outside and from within.

From outside, as much as you might try and as much as you might insist, you will not be able to draw more than three of the six faces that make up the cubic figure.

From inside, you will be able to draw up to five faces of the cubic space. But you will never be able to draw more than five, even if you can see them.

In truth, all reflection on the previous text only shows that the human being, who is the center of architecture, is a physical being with a front and a back, a right and a left side, an above and a below. And with a frontal vision that takes in at any moment no more than a 180 degree angle at the same time, even though the space is entire, global, whole in its continuity and can be understood in all of its dimensions.

And the same is true of the structure. A roof requires legs to hold itself up, to transmit the load of its weight to the earth on which it rests. An architecture "without pillars" is probably no freer nor more modern. And for the moment, it is not possible. As if someone tried to make poetry without words or a cake without flour. It would be something, but not architecture or poetry or cooking.

Fortunately, because of the law of gravity, the space of architecture is made up of indispensable material elements. And it needs light in order to be understood and enjoyed by man. Always, light and gravity. In both rests the Beauty we find in architecture.