Objectives

The purpose of this experiment

is to check how precise are the shadows generated by Revit 8.1. This is very important to perform sun studies that will define buildings locations and special elements, like brise-soleil or swimming pools.

Method

First, we need a single object, with known dimensions (width, lenght and height).



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Then, we put this object (a box) at the sunlight, at two specifics times of the day (morning and afternoon).

A compass helps to precisely orient the face of the box to north direction.

So, the cast shadows were measured, and its edges transferred to a drawing, keeping the scale. As we did the experimente twice, at 11:23 and 16:07, we'll have two drawings.



The next step is to create a model into Revit, that exactly reproduce the given conditions.





Real Model

We used a 10x10x10 box, over a sheet of milimetered paper, oriented to North.

At 11:23, the edges of the shadow were sketched onto the paper.



The procedure was repeated at 16:07, and the edges traced onto another sheet.







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Results







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