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# FIVE RULES OF CONSTRUCTING SHADOWS

**Keywords:** *Light, shadow, construction of shadows, descriptive geometry, spatial imagination*

This work will present author's experience in the field of teaching architecture and interior's architecture students constructions of shadows. In particular, author had formulated five rules, to effectively help in learning the basics of shadow's construction in the course of descriptive geometry.

From author's own experience, it is clear, shadows seems to be considered as one of the most difficult themes discussed during the course of descriptive geometry. To make it easier to learn this part of geometry, author had formulated five basic rules, as a fundamental knowledge in this field. It is important, these rules are valid, no matter what kind of lighting we consider (parallel light versus spotlight) and can be used for both Monge's method and central projection's method (perspective).

This work will present all rules along with examples that explain their meaning. Knowing them and knowing how to apply them in real life, will guarantee a successful result for the huge majority of cases, that an architect might encounter.

Rule 1.
Shadow of any point on any surface will be the pierce point of that surface by a ray of light coming from the point.

Rule 2.
Shadow of any line on any surface always goes through the pierce point of that surface by that line.

Rule 3.
Shadow of any flat figure on a parallel plane with a parallel light, will be the same figure.

Rule 4.
The shape of a projected shadow will be determined by those lines on a body's surface, that separate lighted and shaded areas.

Rule 5.

If two projected shadows are crossing each other, this indicates the presence of a mutual shadow and is helpful in its construction.

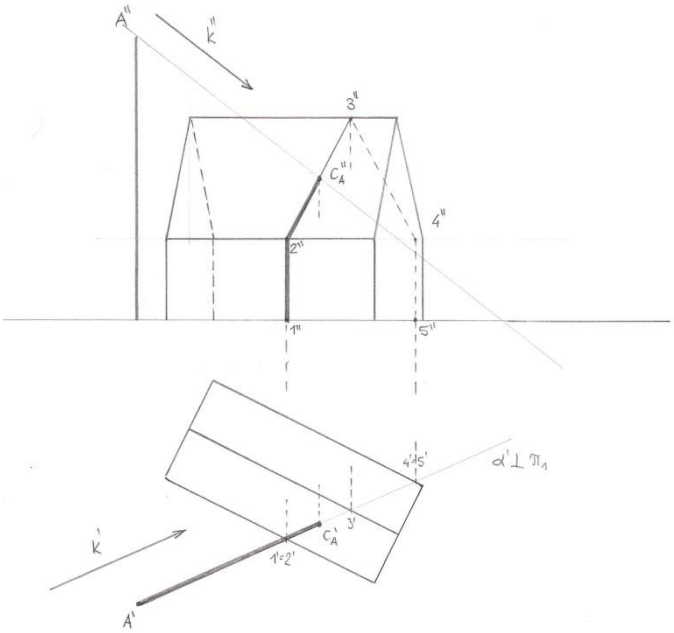


Fig.1 This drawing is an explanation to the first rule: A shadow of point A will be constructed as a pierce point of the roof, using proper section.

In order to get some skill in constructing shadows, all rules must of course be understood and some time must be invested in proper practice. As with many other topics, training is the best way to master the problem.