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THE STUDY OF VARIOUS PROCESSES INFLUENCE ON THE PERCEPTION OF NATURAL FACING STONE EXTERIOR

Background. Today, natural facing stone, as a qualitative and durable natural building material, is used as a decorative material for buildings decoration. That's why, besides physical and mechanical properties, its aesthetic characteristics are important when choosing a place to use.

Mineral composition and structure of stone, as well as natural stone features change during the extraction of natural stone blocks at different horizons of a quarry. The differences in the plates structure, color and lightness are clearly observed at surface-tooling of plates made of various natural stone blocks that were extracted at different depths. When diverse in color and lightness stone is used for facing of buildings and structures, sensory difference in the perception of the visual analyzer exists. Thus, when facing buildings or other constructions with natural stone, especially when these works are of big volume, the problem of selection of plain plates appears, as far as the same type of stone has different lightness at the same surface-tooling [1].

Technological processing, as well as many other different factors can affect a stone exterior perception depending on the type and the place of application. Therefore, we should investigate the impact of these factors on the perception of the natural stone surface.

The main material of the research.

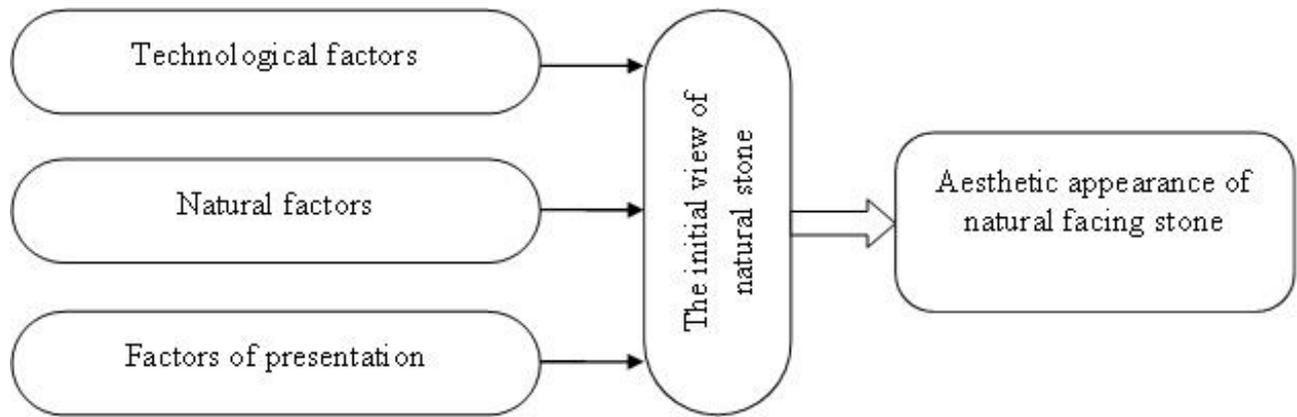
The products made of natural facing stones can be classified by many attributes, such as: the type, the function, the geological origin and mineralogical composition of initial rocks, basic properties, the method of manufacture, the degree of decorativeness and the character of a stone processing.

Facing stone is produced for internal and external facing work. Facing works and facing materials are divided into:

- Exterior (facades);
- Internal (facing surfaces of the interior: walls, partitions, floors).

The exterior of facing stone. There is a large number of processes that can affect the appearance of decorative stone. Under the term "exterior of natural stone" we mean its front surface texture, pattern, color, rock structure.

Fig. 1. The influence of various factors on the aesthetic appearance of facing stone



The aesthetic appearance of a stone depends not only on the initial appearance of a stone, but on other factors (Fig. 1). Primarily, the technology of natural facing stone processing positively affects the quality of a stone appearance, i.e.: it emphasizes the structure and the patterns of natural stone, saturates its color. In its turn, processing technology depends on the way natural stone is used, providing a proper surface texture of natural stone, which determines the impact of technological factors on the quality of stone appearance [2].

Natural factors are connected with temperature, humidity, dusty air, such precipitation as rain, snow, and other accelerated effects.

Factors of presentation include the location, type and lighting of a construction which is being faced.

Conclusions

Natural and technological factors, as well as the initial appearance of stone are more understood today. Factors of presentation require more detailed study, because the dependence of aesthetic appearance of the natural facing stone on the location, height, type and lighting of a construction is significant. Therefore, the development of the research and more detailed study of this problem will allow using natural facing stone efficiently.

REFERENCES

1. Shamrai, V., Korobiychuk, V. (2014). Influence of grinding-polishing of natural stone on its shine and lightness shades. *Eastern-European Journal Of Enterprise Technologies*, 5(5(71)), 56-60.
2. Bakka, M. T., Korobiichuk, V. V., Zubchenko, E. A. (2006). *Processing of natural stone: study guide*. Zhytomyr, ZSTU, 438.