Aged finishing of stone surfaces

A research group at CSIC has found that certain animal glues can be used to give an aged appearance to stone surfaces. The application of this layer yields an homogeneous finishing for construction elements to monuments or historical buildings, and can also be employed for restoration purposes. Partners interested in a patent license are being sought.

Aging for restoration, and treatment for aging

Stone surface aging is achieved by either mechanical or chemical techniques, to give stone (natural or artificial) a finishing by which it acquires an aged look. This effect is useful for monument parts, sculptures, as well as for construction elements and worktops.

The new finishing developed by CSIC researchers gives stone surfaces an aged appearance, more similar to that obtained by natural process. Façades where new, smoother pieces or fragments have been placed will attain a more homogeneous look. New construction elements or sculptures can also gain an aged appearance with its application.

Make it rough, if you need it

It is obtained by applying a layer of an adhesive organic substance dissolved in water on the surface which pulled off the surface once it is dry, carries with it some mineral components attached to the stone, yielding the roughness ultimately responsible for the aged look. The final appearance of the surface can be changed modifying the drying conditions and duration.

If employed for the restoration of damaged surfaces or old buildings, or pieces of sculpture elements, the composition of the glue-water solution must be adjusted so that the final roughness equals that of the original stone surface.

Main applications and advantages

- Application of the finishing is independent of the surface state to be treated (built and/or mounted, or during the fabrication process).
- Pieces can be cut either before or after the finishing has been applied.
- The adhesive layer, once dry, can be pulled of using any of the tools employed in restoration, construction or engraving/sculpturing industry: palette knife, hard bristle or metallic barb/tooth brush, or scrapper.
- The rough finishing achieved by this technique allows obtaining pavements with lesser sliding.

Patent Status
Priority established by a Spanish patent application

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