

R. J. SCHAFFER  
STONE PRESERVATIVES

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TRAITEMENTS POUR LA PRÉSERVATION DES PIERRES.  
RÉSUMÉ.

*Beaucoup d'argent a été dépensé pour de traitements pour la préservation des pierres qui n'ont pas été efficaces. Quelques-uns ont été inoffensifs. La façon la meilleure pour juger l'utilité d'un tel traitement est d'organiser des expériences dans lesquelles de surfaces similaires, traitées ou non, puissent être comparées côté à côté et attendre le résultat avec patience. Toutefois même les résultats de telles expériences ont été décourageants. D'autres expériences sont à l'étude.*

The search for a colourless stone preservative to avert or compensate for the harmful effects of the weather without changing the natural appearance of the stone began with the work of J. N. von Fuchs on the alkali silicates, nearly 150 years ago. Since then, many different proposals have been made. Each has eventually become discredited. Some stone preservatives have been simply ineffective; some have induced scaling of the treated surfaces, causing more harm than good. Where stone decay is associated with salt-contamination, the salts inevitably break through the treated surfaces.

Liquids applied by brush or spray do not penetrate far enough or last long enough to give any good promise of success. Complete impregnation of each block offers a better prospect, but is not practicable on any large scale.

Yet, despite the disappointments of the past and the unpromising outlook, new stone preservatives are being advocated and older methods are being reintroduced, and no satisfying evidence is offered in support of the claims made for them. Theoretical arguments have proved so unreliable that they carry no weight, except among the uninitiated, and reference to the good condition of buildings on which they have been used can be misleading: stone preservatives have often been used on stone that would have weathered just as well had it not been treated.

The only reliable way of judging the merits of a stone preservative is to compare similar surfaces, treated and untreated, side by side. This has not been sufficiently recognised by the general public. In consequence, much money has been spent to no good purpose.

Trials can be made by selecting suitable areas of existing buildings for treatment and observation; or panels or piers of masonry can be built for the purpose. Weighed samples of stone, treated and untreated, can be prepared in the laboratory and kept under observation on a suitable site. If these are carefully washed and dried (at the laboratory temperature) and reweighed at intervals, they provide a quantitative measure of the degree of protection afforded by the preservative and of its lasting qualities.

No organised trial of a stone preservative has yet (to my knowledge) given a favourable result.

New trials on selected areas of buildings have lately been undertaken in the United Kingdom to compare some new and some older methods and supplement other trials already in progress. Since the normal processes of weathering of untreated stone takes place so much more slowly than is commonly supposed, it may be several years before the results can be evaluated.