

Schokbeton Pre-cast Concrete Recipes and Changing Aesthetics

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BOOK OF ABSTRACTS



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Figure 1: Sample castings of pre-cast concrete on the abandoned factory site of Schokbeton Zwijndrecht and a fan with photos of those sample castings with recipes containing binder(s) and aggregates. Photos: W. Quist.



Figure 2: UMC hospital in Utrecht, EGM Architecten (1989). Photo from the Schokbeton archives @Heritage & Architecture.

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SCHOKBETON PRE-CAST CONCRETE RECIPES AND CHANGING AESTHETICS

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Neither pre-cast concrete nor the company *Schokbeton* itself is typical for the period 1975-2000, but the paper material saved from the former laboratory of the Dutch pre-cast concrete factory holds an intensive record of concrete recipes and references to buildings from the period 1945-2000. The recipes together with a large number of sample castings left on the factory site in 2015 after the bankruptcy of the company shed an interesting light development of concrete aesthetics. (Fig. 1)

About 1000 different recipes in all its variants have been identified in the recipe-books from *Schokbeton's* concrete laboratory.[1,2] The different types of cement, many different types and fractions of larger aggregates, different sands and their ratios have been documented. It is needless to state that those differences have a tremendous influence on the aesthetics of the concrete created with those recipes. Parallel to the study of the recipes, photo's were taken from the 300 sample castings from the factory site. Both recipes and photos have been joined in a printed fan linking the ingredients used for the concrete and the concrete looks (Figure 1). The fan can be used to 1) illustrate the great diversity in concrete variants, 2) visually identify concrete variants and 3) assist in designing repair mortars.[3]

The stagflation in the 1970's drastically influenced the building industry in general and the concrete industry in particular. Less buildings were erected and there was a run to the financial bottom in every project. In case of *Schokbeton* the change is clearly visible in the simplified aesthetics of their exposed concrete elements. Where in the 1950's and 1960's a wide range of different aggregates, surface finishes and geometric details were applied, the 1970's and 1980's are characterized by straight forward geometries in plain greyish concrete with tiles, brick or natural stone as surface finish, later in the 1990's, followed by the use of pigments to colour the concrete elements. Large projects with an emphasis on repetition of economically designed concrete elements have dictated the period 1975-1995. (Fig. 2)

What this means in terms of heritage value and heritage protection is still to be seen. It is clear that the buildings made by renowned architects such as the *Peperklip* by Carel Weber, the *Willemswerf* by Wim Quist or the *Broadwalk House* by SOM belong to the icons of their time and already survived one or more renovation campaigns. It's difficult to predict if those buildings will ever receive the same status as the former *Banque Lambert* in Brussels, the *Préfecture de la Seine-Saint-Denis* in Bobigny or the *US-embassy* in Dublin. It is observed that many non-descript office buildings or even quite iconic office buildings such as the Belgacom tower in Gent have already been heavily altered or demolished. Demolishment cannot be the answer to those buildings we have inherited from our predecessors. We have to deal carefully with them, not only because of (potential) heritage value but also because of the huge amount of non-renewable resources and embedded CO₂ in the building materials.

¹ Quist, W. J. (2021). From imitation to acceptance to worldwide production of Schokbeton. In A. Tostoes, & Y. Yamana (Eds.), 16th International Docomomo Conference Tokyo Japan 2020+1 Proceedings -Inheritable Resilience: Sharing Values of Global Modernities (pp. 540-545). (Inheritable Resilience: Sharing Values of Global Modernities - 16th International Docomomo Conference Tokyo Japan 2020+1 Proceedings; Vol. 2).

² H.A. Heinemann, W.J. Quist. (2017). Het Schokbetonarchief – voorbeeld van het afstoffen van prefab beton erfgoed, TNO – NVMz studiedag Historisch beton, Delft.

³ Jonker, M., & Quist, W. J. (2021). URL 2003 - Betonrestauratie - advies: Uitvoeringsrichtlijn. Stichting Erkende Restauratiekwaliteit Monumentenzorg. <https://www.stichtingerm.nl/kennis-richtlijnen/url2003>

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