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Titolo	Methodologies for Service Life Prediction of Buildings : With a Focus on Façade Claddings / / by Ana Silva, Jorge de Brito, Pedro Lima Gaspar
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	Buildings—Repair and reconstruction
	Computer simulation
	Mathematical models
	Industrial design
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Service life and durability of assemblies -- Deterministic models -- Stochastic models -- Computational models -- Factorial models -- Comparative analysis of service life prediction methods.-Conclusion.
Sommario/riassunto	Presenting an analysis of different approaches for predicting the service life of buildings, this monograph discusses various statistical tools and mathematical models, some of which have rarely been applied to the field. It explores methods including deterministic, factorial, stochastic

and computational models and applies these to façade claddings. The models allow (i) identification of patterns of degradation, (ii) estimation of service life, (iii) analysis of loss of performance using probability functions, and (iv) estimation of service life using a probability distribution. The final chapter discusses the differences between the different methodologies and their advantages and limitations. The authors also argue that a better understanding of the service life of buildings results in more efficient building maintenance and reduced environmental costs. It not only provides an invaluable resource to students, researchers and industry professionals interested in service life prediction and sustainable construction, but is also of interest to environmental and materials scientists.