Reinforcement of Timber Structures

A state-of-the-art report

Editors
Annette M. Harte, Philipp Dietsch
Annette M. Harte,
Philipp Dietsch (eds.)

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Preface

This report is a publication developed within the European network COST Action FP1101 “Assessment, reinforcement and monitoring of timber structures”.

COST Action FP1101 is a research network established under the aegis of the COST domain “Forests, their Products and Services”. The main objective of COST Action FP1101 is to increase the acceptance of timber in the design of new structures and in the repair of existing structures by developing and disseminating methods to assess, reinforce and monitor them. The Action is structured into three working groups: Working Group 1: Assessment of timber structures, Working Group 2: Reinforcement of timber structures, Working Group 3: Monitoring of timber structures.

This report has been prepared by members of Working Group 2. It is a distillation of the work presented and discussed by members at a series of workshops over the course of the Action. These workshops considered the latest research in reinforcement technologies for both modern and historical timber structures, current and proposed design methods and also case studies that illustrate the current state-of-practise for on-site implementation of these technologies.

Gratitude is expressed to the COST Office for funding these workshops and the publication of this report. The contribution of Rotafix UK, Rothoblass and SPAX to the technical activities of COST Action FP1101 and their financial support towards the publication of this report is also gratefully acknowledged. Finally, special thanks are due to the authors, reviewers and all working group members who contributed to the preparation of this report.

Annette M. Harte, Philipp Dietsch, Editors