



Contents

6 / Preface

7 / Acknowledgements

9 / Historic lime technologies and their potential present-day use

10 / Introduction

12 / Selected examples of historic lime-based binders and mortars illustrating their importance for authenticity and conservation

15 / Determining the characteristics of lime binders based on analyses of historic mortars

16 / Categorisation of lime binders based on chemical composition

16 / Microscopic description and analysis of lime binders

18 / Provenance of raw materials used to make lime binders

18 / Present-day possibilities for the use of traditional lime technologies

18 / Small-scale production of a special lime binder in a traditional manner

22 / Buying and processing burnt lime (quicklime)

23 / Preparing lime mortar using traditional technologies

24 / Quality and use of binders made in the traditional manner

27 / Sources of historic raw materials and mapping the occurrence of lime production technologies in the Czech Republic

28 / Availability and choice of raw materials in the past at a glance

31 / Summarising information on historic lime raw materials and technologies

31 / Information contained in the Calcarius geodatabase

32 / Displaying summary information in map applications

32 / Historic and current sources of raw materials for lime technologies

33 / Carbonate raw materials for lime production

33 / Lime technologies

47 / Lime production technologies and traditional lime kilns

48 / Basics of lime production technology

52 / Traditional lime kilns and calcination methods

61 / Experimental lime kiln and principles of traditional wood-fired burning

62 / Experimental lime kiln

69 / Traditional wood-fired lime burning

79 / Traditional processing of lime as a binder

80 / Wet-slaking of lump quicklime and preparing lime putty

87 / Slaking natural hydraulic lime to powder

91 / Slaking lime with sand and preparing hot mortar

94 / References