

Preface	vii
Acknowledgements	ix
Introduction to the issue of plaster casts	1
A brief history of plaster casts	5
The technology behind the making of casts	11
Mould making	11
Casting	13
Surface finishes	15
Characteristics of gypsum binder and plaster casts	17
The composition of gypsum binder	17
Production of gypsum binder	17
Hydration of hemihydrate plaster	18
Influence of admixtures	19
Microstructural properties of plaster casts	20
Absorption capacity and hygroscopicity of plaster casts	21
Sensitivity of plaster casts to high temperature	23
Solubility	23
Mechanical properties of plaster casts	24
Damage to plaster casts	27
Mechanical damage	27
Damage due to water, high humidity and heat	28
Degradation of fittings and reinforcements	29
Secondary repairs and interventions	30
Soiling	31
Damage to surface finishes and polychromy	31
Research into plaster casts	33
Compiling information about the history of works of art and iconographic data	33
Visual inspection of the work	33
Extended chemical-technological research	34
Introduction to conservation issues	39
Cleaning	43
Criteria for selecting the cleaning method	44
Cleaning methods	45
Plaster cast cleaning: case studies	47
Conclusion	55
Consolidation	57
Consolidation selection criteria	57
Materials used for plaster consolidation	59
Methods and conditions of the application of consolidants	63
Consolidation: case studies	65

Conclusion	69
Gluing	73
Criteria for choosing an adhesive	73
Adhesives used for gluing	74
Gluing plaster casts: case studies	80
Conclusion	87
Integrating and retouching	91
Filling	93
Retouching	96
Plaster cast integration and retouching: case studies	98
Conclusion	107
Conditions for the storage and transport of plaster casts	109
Conditions for storage and presentation	109
Manipulation of plaster casts and their transport	110
Conclusion	115
Glossary of damages	117
Traditional methods for various cast surface finishes	121
Bibliography	123

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.