



## A BIBLIOGRAPHY ON MASONRY MAINTENANCE, RESTORATION, ETC

Clayford T. Grimm <sup>1</sup>

### ABSTRACT

This bibliography provides a guide to the current literature on how to conserve, clean, maintain, point, tuck-point, preserve, refurbish, rehabilitate, renovate, repair, replace, restore, retrofit, strengthen, treat, and care for adobe, clay brick, stone, terra cotta, and concrete masonry. The paper provides 359 citations on application of grout, epoxy, and coatings, treatment of biological infestation and rising damp, and seismic isolation of buildings.

**Key words:** conservation, maintenance, preservation, reconstruction, rehabilitation, renovation, repair, restoration, retrofit, strengthening

---

<sup>1</sup> Consulting Architectural Engineer, Austin, Texas

## **DEFINITIONS**

The terminology on how to fix masonry is so abundant as to be confusing. It includes care, clean, conserve, maintain, point, preserve, protect, refurbish, rehabilitate, renovate, repair, replace, restore, retrofit, save, stabilize, strengthen, transform, treat, and tuck-point. The first step in the application of the scientific process is the definition of terms. An appendix provides suggested definitions of the more typical words use to describe the process applied to masonry.

## **GUIDE TO THE LITERATURE**

This bibliography provides 359 numbered citations to the relevant literature, including nine other bibliographies. Table 1 lists key words and their synonyms that appear in the title of the cited references together with the associated citation number.

## **CONCLUSION**

Happy hunting.

Table 1. Keywords in Citation Titles

adobe	30, 56, 65, 69, 280, 281, 283, 284
brick	5, 19, 41, 48, 57, 51, 72, 83, 101, 107, 108, 114, 123, 129, 130, 146, 149, 150, 155, 175, 186, 265, 273, 274, 275, 316
bibliography	10, 21, 113, 138, 139, 220, 239, 274, 335
biodegradation	41, 79, 126, 191, 192, 202, 203, 206, 276
cleaning	7, 16, 17, 18, 20, 36, 62, 68, 97, 100, 102, 112, 117, 135, 137, 173, 177, 189, 190, 193, 194, 195, 196, 197, 198, 199, 200, 201, 203, 205, 207, 208, 225, 260, 271, 285, 286, 317
coating	38, 37, 113, 133, 309,
concrete masonry	8, 14, 15, 16, 18, 134, 154, 156
conservation	2, 24, 57, 60, 80, 81, 93, 113, 129, 193, 204, 209, 217, 224, 236, 249, 266, 273, 274, 277, 278, 279, 292, 295,
grout	50, 87, 100, 110, 153, 157, 158, 183
isolation	53, 76
maintenance	9, 10, 12, 14, 15, 19, 39, 43, 55, 66, 73, 82, 88, 99, 124, 125, 128, 138, 141, 147, 160, 161, 162, 167, 173, 174, 176, 180, 185, 225, 229, 242, 261, 328, 316
mortar	49, 83, 110, 111, 132, 133, 152
pointing	42, 44, 45, 51, 120, 132, 143, 308,
preservation	21, 22, 23, 65, 69, 85, 104, 121, 122, 127, 139, 142, 154, 172, 178, 187, 216, 220, 222, 223, 226, 229, 230, 238, 239, 241, 248, 251, 252, 253, 254, 255, 256, 281, 291
rehabilitation	4, 74, 144, 154, 288, 303, 330,
renovation	4, 11, 25, 27, 28, 29, 52, 111, 115, 119, 154, 186, 275, 313, 314,
repair	3, 8, 31, 32, 33, 40, 50, 54, 58, 67, 74, 77, 84, 86, 88, 105, 106, 110, 125, 131, 134, 145, 153, 156, 157, 158, 174, 175, 177, 178, 185, 188, 212, 218, 230, 231, 236, 240, 242, 245, 151, 170, 257, 265, 268, 269, 270, 287, 294, 298, 312, 315, 326, 327, 328, 337, 338, 339, 340, 341
restoration	11, 21, 25, 59, 63, 70, 71, 75, 92, 95, 96, 99, 114, 115, 116, 119, 122, 142, 152, 164, 165, 166, 168, 169, 179, 182, 210, 211, 213, 225, 237, 252, 289, 295, 296, 310, 319, 321, 322, 323, 324,
retrofit	13, 53, 58, 64, 94, 136, 184, 233, 295, 297, 299, 301, 304, 305, 306,
rising damp	5, 89, 109
stone	24, 47, 52, 68, 93, 112, 113, 114, 130, 137, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 207, 208, 209, 214, 215, 216, 217, 218, 218, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 232, 233, 234, 235, 236, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 266, 271, 276, 277, 278, 279, 300, 318, 320, 334, 336
strengthening	46, 107, 118, 134, 136, 148, 171, 290, 293, 300, 302, 311, 325, 329, 331, 332, 333, 342
terra cotta	1, 48, 98, 133, 172, 187, 264, 267
related literature	6, 26, 78, 90, 91, 140, 159, 163, 170, 181

## APPENDIX

### DEFINITIONS

**maintenance** - act or process of limiting deterioration of masonry's appearance or functional performance in an effort to limit the need for repairs.

**preservation** - act or process of applying measures necessary to sustain the existing form, integrity, and materials of historic masonry. Work focuses upon ongoing maintenance and repair rather than extensive replacement and new construction.

**reconstruction** - act or process of depicting, by means of new construction, the form and details of non-surviving masonry for the purpose of replicating its appearance at a specific period of time.

**rehabilitation** - act or process of making masonry useful through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

**repair** - act or process of bringing masonry to an acceptable condition by renewal or replacement of damaged or nonfunctional materials.

**restoration** - act or process of accurately depicting the form and details of masonry as it appeared at a particular period of time by removal of features from other periods and reconstruction of missing features from the earlier period.

**retrofit** - act or process of modifying masonry to meet contemporary needs by addition of new materials or components not provided in the original construction. The term is typically applied to structural systems.

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
290	Abrams, D. P. and D. R. Shelangoskie	Improving Lateral Force Resistance in an Old Unreinforced Brick Building	4th North American Masonry Conference	The Masonry Society	Boulder, CO	Aug 1967	69
1	Ahrenhoesterbaeumer, Dennis	Hutchings-Sealy Building: A Terra Cotta Showcase	The Construction Specifier	Construction Specification Institute	Alexandria, VA	Oct. 1987	131-132
329	Albert, Michael et al	Tests on Unreinforced Masonry Walls Strengthened with External Fiber Reinforced Plastic	8th Canadian Masonry Conference	University of Alberta	Edmonton, Alberta	May 1998	459-470
303	Amanullah, S	Seismic Rehabilitation of Older Masonry Buildings	4th International Seminar on Structural Masonry in Developing	Tata McGraw-Hill Publishing Company	New Deli, India	1992	274-279
2	Amoroso, Giovanni and V. Fassina	Stone Decay and Conservation		Elsevier Science	New York, NY	1983	
197	Andrew, C. A. et al	Stone Cleaning: A Guide for Practitioners		Robert Gordon University	Aberdeen, Scotland	1994	
193	Andrew, C. and E. Crawford	Conservation Planning Considerations in Stone Cleaning	Proceedings of the International Conference, Edinburgh	Donhead Publishing Ltd	Shaftesbury, Dorset, UK	April 1992	
3	Anonymous	Repairing Brick and Block Masonry	BRE Digest, 359	Building Research Establishment	Garston, Watford, England	3/1/1991	
4	Anonymous	Structural Renovation and Rehabilitation of Buildings		Boston Society of Civil Engineers	Boston, MA	10/9/1979	
5	Anonymous	Brick Walls: Injected dpc's (damp proof course)	Defective Action Sheet	Building Research Establishment	Garston, Watford, England	Aug. 1986	
6	Anonymous	Protection of Ancient Buildings	The Builder		London, England	1930	1142
7	Anonymous	Surface Condensation and Mold Growth in Traditionally Built Dwellings	BRE Digest, 297	Building Research Establishment	Garston, Watford, England	May 1985	
3	Anonymous	Concrete and Masonry Repairs and Utilities	TM 5-615	Dept. of the Army	Washington, DC	Nov. 1963	77-97
9	Anonymous	Exterior Building Maintenance During the Winter	Surveyor-Local; Gov. Technology	Temple Press Ltd.	London, England	April 1969	31
10	Anonymous	Design and Maintenance: A Bibliography	Library Bibliography 148B	Dept. of the Environment	London, England	Sept. 1972	
11	Anonymous	Restoration: Exterior Maintenance and Concrete	Building Operating Management	Milwaukee, WI		Dec. 1972	10-12
12	Anonymous	Masonry Maintenance	Building Operating Management	Milwaukee, WI		March 1974	50-54
13	Anonymous	Installation of Wire Ties in Existing Walls	BRE Digest 329	Building Research Establishment	Garston, Watford, England	1993	
14	Anonymous	How to Maintain a CMU Wall	Masonry Construction	Aberdeen Group	Addison, IL	Feb. 1999	15-19
15	Anonymous	Maintenance of Concrete Masonry Walls	NCMA-TEK 8-1A	National Concrete Masonry Assn.	Herndon, VA	1998	
16	Anonymous	Removal of Stains from Concrete Masonry Walls	NCMA-TEK 8-2A	National Concrete Masonry Assn.	Herndon, VA	1998	
17	Anonymous	Control and Removal of Efflorescence	NCMA-TEK 8-3A	National Concrete Masonry Assn.	Herndon, VA	1996	
18	Anonymous	Removal of Graffiti from Concrete Masonry	NCMA-TEK 8-4	National Concrete Masonry Assn.	Herndon, VA	1978	
19	Anonymous	Moisture Resistance of Brick Masonry: Maintenance	Tech. Notes on Brick Construction	Brick Industry Association	Reston, VA	Feb. 1986	
20	Anonymous	Cleaning Clay Products Masonry	Tech. Notes on Brick Construction	Brick Industry Association	Reston, VA	May 1964	
21	Anonymous	Preservation and Restoration of Buildings: Annotated Bibliography	Current Information on Maintenance	Dept. of the Environment	London, England	June 1973	
22	Anonymous	A Guide to Preservation Information	Advisory Council on Historic Preservation	US Government Printing Office	Washington, DC	1982	
23	Anonymous	Standards for Historic Preservation Projects		National Parks Service	Washington, DC	1985	
24	Anonymous	Conservation of Historic Stone Build		National Materials Advisory Board	Washington, DC	July 1982	
25	Anonymous	A Resource Guide to Restoration, Renovation, and Rehabilitation	The Construction Specifier	Construction Specification Institute	Alexandria, VA	July 1987	102-114
26	Anonymous	Saving A Wall	Concrete International	American Concrete Institute	Farmington Hills, MI	July 1986	33-34
27	Anonymous	Brick Masonry Renovation: A Case Study		Brick Industry Association	Reston, VA		
28	Anonymous	Restoration Survey: 95 Madison Ave., New York, NY		Friends of Terra Cotta	New York, NY		
29	Anonymous	Restoration Survey: 475 Tenth Ave.. New York, NY		Friends of Terra Cotta	New York, NY		
30	Anonymous	Preservation of Historic Adobe Buildings	Preservation Briefs	Department of the Interior	Washington, DC	Aug. 1978	
31	Anonymous	Repairing or Replacing Lintels	BRE Good Building Guide	Building Research Establishment	Garston, Watford, England	Sept 1992	
32	Anonymous	Surveying Masonry Chimneys for Repair or Rebuilding	BRE Good Building Guide	Building Research Establishment	Garston, Watford, England	May 1990	
33	Anonymous	Freestanding Brick Walls: Repairs to Copings and Cappings	BRE Good Building Guide	Building Research Establishment	Garston, Watford, England	May 1993	
34	Anonymous	Repairing or Rebuilding Masonry Chimneys	BRE Good Building Guide	Building Research Establishment	Garston, Watford, England	Sept 1990	
35	Anonymous	Cleaning New Brickwork	Masonry Construction Guides	International Masonry Institute	Washington, DC	Nov. 1994	
36	Anonymous	Cleaning Brick Masonry	Technical Notes	Brick Industry Association	Reston, VA	Nov. 1990	
37	Anonymous	Painting Brick Masonry	Technical Notes	Brick Industry Association	Reston, VA	Dec. 1985	
38	Anonymous	Colorless Coatings for Brick Masonry	Technical Notes	Brick Industry Association	Reston, VA	April 1995	
39	Anonymous	Brick Floors and Pavements: Part III of III (Maintenance)	Technical Notes	Brick Industry Association	Reston, VA	Sept 1988	
40	Anonymous	Repairing Brickwork	Digest	Building Research Establishment	Garston, Watford, England	April 1977	
41	Anonymous	Ivy on Brick (Pro and Con)	Engineering and Research Digest	Brick Industry Association	Reston, VA	5/1/80	
43	Anonymous	Maintenance of Masonry Structures	Handbook of Masonry Structures	Portland Cement Association	Skokie, IL		189-207

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
44	Anonymous	Tuck-Pointing	Engineering and Research Digest	Brick Industry Association	Reston, VA	July 1983	
45	Anonymous	Pointing Masonry Construction	Masonry Construction Guides	International Masonry Institute	Washington, DC	Sept 1996	
217	Anonymous	Conservation of Historic Stone Buildings and Monuments	Committee Report	National Academy Press	Washington, DC	1982	
218	Anonymous	Windows and Doors: Reconstituted Stone Non-Structural Components	Defective Action Sheet (Design) DAS 122	Building Research Establishment	Garston, Watford, England	Nov 1988	
219	Anonymous	Repairing Damage to Indiana Limestone: A Basic Guide		Indiana Limestone Institute of America, Inc.	Bedford, Indiana		
220	Anonymous	Stone Preservation: A Selected Bibliography		US Department of the Interior	Washington, DC	June 1977	
221	Anonymous	Windows and Doors: Reconstituted Stone Non-Structural Components	Defective Action Sheet (Site) DAS 123	Building Research Establishment	Garston, Watford, England	Nov 1988	
222	Anonymous	Preservation Treatments for Stone	Technical News Bulletin, No. 150	National Bureau of Standards	Gaithersburg, MD	Oct 1929	94-95
223	Anonymous	Stone Preservation: Jointing Plasterboard	Building Research Station Digest, No. 128	Building Research Establishment	Garston, Watford, England	Nov 1959	
224	Anonymous	Decay and Conservation of Stone Masonry	Building Research Station Digest, No. 177	Building Research Establishment	Garston, Watford, England	May 1975	
229	Anonymous	Weathering, Preservation, and Maintenance of Natural Stone Masonry: Part I	Building Research Station Digest, No. 20	Building Research Establishment	Garston, Watford, England	July 1950	
271	Anonymous	Masonry Products for Historic Buildings: Technical Preservation Database		National Park Service	Washington, DC	1988	
279	Anonymous	Conservation of Stone II		Centro per la Conservazione delle sculture	Bologna, Italy	1981	
266	Anonymous	Conservation of Stone and Other Materials: Research-Industry-Media		E&FN Spon	New York, NY	1993	
285	Anonymous	Cleaning	Technical Bulletin #39	Cast Stone Institute	Winder, GA	Aug. 1999	
286	Anonymous	Efflorescence	Technical Bulletin #33	Cast Stone Institute	Winder, GA	Aug. 1999	
267	Anonymous	Patching	Technical Bulletin #38	Cast Stone Institute	Winder, GA	Aug. 1999	
309	Anonymous	Manure Spray Is No Joke	Engineering News-Record	McGraw-Hill Company	New York, NY	June 1983	18
337	Anonymous	Installing Wall Ties in Existing Construction	Digest 329	Building Research Establishment	Garston, Watford, England	Feb 1988	
339	Anonymous	Installation of Wall Ties in Existing Construction	Digest 257	Building Research Establishment	Garston, Watford, England	Jan 1982	
342	Anonymous	Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings	1997 Uniform Code for Building Conservation	International Conference of Building Officials	Whittier, CA	May 1997	17-28
355	Anonymous	Restoration Survey: 234 Glen Street, Glen Falls, New York		Friends of Terra Cotta	New York, NY		
356	Anonymous	Restoration Survey: Floral St. Land, Osaka, Japan		Friends of Terra Cotta	New York, NY		
357	Anonymous	Restoration Survey: Marusho Department Store, Wakayama, Japan		Friends of Terra Cotta	New York, NY		
358	Anonymous	Seismic Retrofit of Unreinforced Masonry Buildings		International Masonry Institute	Washington, DC	Nov 1991	
322	Anzani, A. L., Binda, and G. Melchiorri	Time Dependent Damage of Rubble Masonry Walls	4th International Masonry Conference	British Masonry Society	Whyteleafe, England	1995	341-351
46	Asakura, A.	Program for Strengthening of Unreinforced Brick Masonry Buildings in Los Angeles	Proceedings	The Masonry Society	Boulder, CO	Aug. 1987	
277	Ashurst John and F. G. Dimes (Ed.)	Conservation of Building and Decorative Stones		Butterworth Scientific	Boston, MA	1990	
47	Ashurst, John and Nicola Ashurst	Practical Building Conservation: Stone Masonry		Halsted Press	New York, NY	1988	
48	Ashurst, John and Nicola Ashurst	Practical Building Conservation: Brick, Terra Cotta, and Earth		Halsted Press	New York, NY	1988	
49	Ashurst, John and Nicola Ashurst	Practical Building Conservation: Mortars, Plasters, and Renders		Halsted Press	New York, NY	1988	
348	Ashurst, John and Nicola Ashurst	Practical Building Conservation, Brick, Terracotta, and Earth		Halsted Press	New York, NY	1988	
30	Atkinson, R. H. and M. P. Schuller	Evaluation of Injectable Cementitious Grouts for Repair and Retrofit of Masonry	Masonry: Design and Construction, Problems and Repair	American Soc. for Testing and Materials	W. Conshohocken, PA	1993	355-368
51	Babbitt, Theodore	Repointing Mortar Joints	Progressive Architecture		New York, NY	Oct. 1990	42-44
273	Baer, N. S. et al (Ed.)	Conservation of Historic Brick Structures: Case Studies and Reports of Research (Bibliography)		Donhead Publishing Ltd	Shaftesbury, Dorset, UK	c 1998	
32	Bailey, T. A.	Stone Renovation in Buildings	Structural Survey		London, England	1983	354-361
53	Baily, James S. and E. W. Allen	Seismic Isolation Retrofitting of Salt Lake City and County Building	2nd Joint USA-Italy Workshop on Evaluation and Retrofit of	The Masonry Society	Boulder, CO	Aug. 1987	63-92
54	Ballio, Gulio and Michele G. Calvi	Effects of Horizontal Confinement on Behavior of Ancient Masonry Towers	The Masonry Society Journal	The Masonry Society	boulder, CO	Aug. 1996	35-48
210	Baumgarten, Paul and Glenn Boornazian	Preliminary Studies Develop a Restoration Program: Case Study, Grace Episcopal Church, NY	Stone World		Saddle Brook, NJ	Mar 1993	107-110
225	Beall, Christine	Making It New Again: Cleaning Maintaining, and Restoring Stone Masonry	Stone World		Saddle Brook, NJ	Sept 1995	132-138
317	Bebbington, P. J. et al	Discoloration of Mortar Joints by Manganese-Colored Brick	Bulletin	American Ceramic Society	Columbus, Ohio	1966	271-276
56	Beiner, R. J.	Masonry Preventive Maintenance: A check List	Building Operating Management	Milwaukee, WI		Jan. 1982	46-49
36	Belsher, D. R.	Use of Microwave System for Nondestructive Evaluation of Historic Adobe Structures		National Engineering Laboratory	Boulder, CO	July 1979	
57	Bidwell, T. G.	Conservation of Brick Buildings	Conservation of Brick Buildings	Brick development Association	Winsor, Berkshire, UK	Aug. 1977	
39	Biggs, David	Masonry Restoration of the Bennington Battle Monument	5th N. American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	783-792
38	Biggs, David	Reanchoring Techniques for Masonry Veneer	6th N. American Masonry Conference	The Masonry Society	Boulder, CO	517-528	
264	Biggs, David	Terra Cotta Restoration: A Case Study	8th Canadian Masonry Symposium	University of Alberta	Edmonton, Alberta	May 1998	273-287

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
310	Biggs, David	Facade Restoration of a 1889 Brownstone	8th Canadian Masonry Conference	University of Alberta	Edmonton, Alberta	May 1998	266-275
326	Binda, L. and G. Baronio	Performance of Masonry Prisms Repaired by Grouting Under Various Environmental Conditions	Masonry International	British Masonry Society	Whyteleafe, England	1989	74-79
302	Binda, L. C. Modena, and G Baronio	Stengthening Masonry by Injection Techniques	6th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1993	1-14
30	Binda, L et al	Measurement of the Rate of Deterioration of Masonry Materials and of Conservation Measures	Proceedings No. 4	British Masonry Society	Whyteleafe, England	1990	
31	Binda, L. et al	Experimental Study on Decayed Brick Masonry Strengthened by Grouting	2nd Joint USA-Italy Workshop on Evaluation and Retrofit of	The Masonry Society	Boulder, CO	Aug. 1987	63-92
323	Binda, L., N. Lombardini and F.	St. Vitale in Ravenna: A Survey of Materials and Structures	International Conference Historical Buildings and Ensembles		Karlsruhe	1996	113-124
349	Binda, Luigia and James Noland (Ed)	Evaluation and Retrofit of Masonry Structures		Van Nostrand Reinhold Company	New York, NY		
351	Binda, Luigia (Ed.)	Effectiveness of Injection Techniques for Retrofitting Stones and Brick Masonry Walls in Seismic	International Workshop	Politecnico di Milano	Milano, Italy	1992	
211	Boomazian, Glenn	Restoring St. Ann's	Masonry Construction	Aberdeen Group	Addison, IL	Oct 1990	452-455
32	Boyer, David W. and J. W. Dunlap	Masonry Cleaning: The State of The Art		ProSoCo, Inc.	Kansas City, MO		
33	Boyer, Gerald	Masonry Restoration	Building Operating Management	Milwaukee, WI		Jan. 1981	46-48
346	Brandow, Gregg and Gary Hart	Seismic Strengthening of Historic Concrete Frame with Brick Infills Using Base Isolation	3rd National Concrete and Masonry Conference	Portland Cement Assocoation	Skokie, IL	June 1995	829-832
340	Brown, R. H. et al	Strength and Behavior of Retrofit Embedment in Masonry	3rd North American Masonry Conference	The Masonry Society	Boulder, CO	June 1985	
34	Calvi, G. M. and G. Macchi	Behavior Coefficients for Evaluating and Retrofitting	2nd Joint USA-Italy Workshop on Evaluation and Retrofit of	The Masonry Society	Boulder, CO	Aug. 1987	123-144
202	Cameron, S. et al	Biological Growths on Sandstone Buildings: Control and Treatment	Historic Scotland Technical Advice Note No. 10	The Stationery Office	Edinburgh, Scotland	1997	
188	Carosino, C. et al	Historic Masonry Deterioration and Repair Techniques - An Annotated Bibliography	PB94-130648INZ	Natl. Technical Information Service	Springfield, VA	1993	
35	Carter, Theresa Howard Carter et al	Notes on Bud-Brick Preservation	Summer, Journal of Archaeology and History in Iraq	Directorate-General of Antiquities	Baghdad, Iraq	1966	65-76
36	Chambers, J. Hendry	Cyclical Maintenance of Historic Buildings		National Park Service	Washington, DC	1976	
57	Chandler, T	Defects and Repairs to Brick Panel Walls in High Rise Buildings	5th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	1397-1416
226	Clarke, B. L. and J. Ashurst	Stone Preservation Experiments		Building Research Establishment	Garston, Watford, England	1972	
227	Clifton, James R.	Laboratory Evaluation of Stone Consolidants	Adhesives and Consolidants	Intl. Inst. for Conservation of Historic and	London, England	1984	151-155
228	Clifton, James R.	Stone Consolidating Materials: A Status Report	PB80-20292 2??	National Technical Information Service	Springfield, VA	May 1980	
280	Clifton, James R.	Protecting Adobe Walls from Ground Water	PB 295 041	National Technical Information Service	Springfield, VA	Mar 1979	
281	Clifton, James R.	Adobe Building Materials: Properties, Problems, and Preservation	PB 271 847/6ST	National Technical Information Service	Springfield, VA	1977	
284	Clifton, James R.	Adobe Building Materials: Properties, Problems, and Preservation	Technology and Conservation	Technology Organization, Inc.	Boston, MA	1977	30-34
38	Clifton, James R (Ed)	Cleaning Stone and Masonry		American Soc. for Testing and Materials	W. Conshohocken, PA	1986	
39	Clifton, R.	Preservation of Historic Adobe Structures		National Park Service	Washington, DC	Feb. 1977	
313	Cole, G. G. and P. L. Kelley	Cladding on Existing Masonry With Masonry Veneer (ASTM STP 1180)	Masonry: Design and Construction, Problems and Repair	American Soc. for Testing and Materials	W. Conshohocken, PA	1993	369-385
70	Collepari, M	Degradation and Restoration of Masonry Walls of Historic Buildings	Materials and Structures	RILEM	Cachan Cdex, France	1990	81-102
330	Collins, Marie A. and C. T. Stude	Masonry Sewer Rehab	Civil Engineering	American Society of Civil Engineers	Reston, VA	Sept 1995	65-67
311	Corradi, Massimo	Science of Strengthening Historic Buildings: A Possible New Discipline	Proceedings	British Masonry Society	Whyteleafe, England	Oct 1998	314-319
71	Cowie, J. and P. Ameny	Development, Testing, and Application of a Masonry Restoration Tie System	5th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	813-826
72	Cowie, J. and P. Ameny	Replacement of Defective Precast Concrete Wall Panels with Brick Masonry Veneer Without	5th North American Masonry Conference	The Masonry society	Boulder, CO	June 1990	1371-1384
304	Dawe, J. L. et al	Seismic Retrofit for Masonry	4th International Seminar on Structural Masonry in Developing	Tata McGraw-Hill Publishing Company	New Deli, India	1992	268-273
353	de Oliveira, Fl and J. B. de Hanai	Use of Ferrocement in Rehabilitation of Masonry Walls	5Th Australian Masonry Conference	Central Queensland University	Queensland, Australia	July 1998	67-74
270	de Vekey, R. C. and K. Tarr	Effect of Relaxation on Performance of Mechanically Fixed Remedial Wall Ties	4th International Masonry Conference	British Masonry Society	Whyteleafe, England	1995	33-39
265	de Vekey, R. C.	Replacement of Cavity Wall Ties Using Resin-grouted Stainless Steel Rods	Building Research Establishment Information Paper	Building Research Establishment	Garston, Watford, England	Oct 1979	
338	de Vekey, R. C.	Performance of Resin-Bonded Replacement Ties for Cavity Walls	2nd Canadian Masonry Symposium	Carleton University	ttawa, Onatrio	June 1980	537-548
275	Decker, Phillip J.	Renovating Brick Houses for Yourself or for Investment		Storey Communications	Pownal, VT	c1990	
73	Derrick, James R.	Exterior Masonry: Preventive Maintenance Guide	Building Operating Management	Milwaukee, WI		Jan. 1983	18-24
74	Dickey, Walter D.	Repair and Rehabilitation of Existing Building	4th International Brick Masonry Conference	Indutrie da la Terre Cuite	Brussels, Belgium	April 1976	5.c.1
314	Dohlman, Dwight L.	System for Brick Veneer (Renovation)	Construction Specifier	Construction Specifications Institute	Alexandria, VA	Sept 1996	67-72
215	Donatelli, Joseph M	Re-crystallization of Marble: Are Chemically Altering Mixes a Hoax?	Building Stone Magazine		Purdys, NY	Mar 1990	7-8
75	Dowrick, D. J. and P. Beckmann	York Minster Structural Restoration	Proceedings	Institute of Civil Engineers		1971	229-230
301	Ehsani, M. and H. Saadatmanesh	Seismic Retrofitting of URM Walls in Fiber Composites	Journal	The Masonry Society	Boulder, CO	Dec 1992	63-72
332	Ehsani, M. R.	Shear Behavior of URM Retrofitted with FRP Overlays	Journal of Composites for Construction	American Society of Civil Engineers	Reston, VA	Feb 1997	17-25
42	Eidelberg, Elena	Our Terra Cotta Legacy	Platform: Atlanta Terra Cotta Company Archive	University of Texas at Austin	Austin, Texas	Fall 1999	

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
76	Elsesser, Eric et al	Base Isolation of Existing City and County Building in Salt Lake City	2nd Joint USA-Italy Workshop on Evaluation and Retrofit of	The Masonry Society	Boulder, CO	Aug. 1987	145-156
283	Ernesto, A et al	Improving the Moisture Resistance of Adobe Structures	Materials and Structures (RILEM)	Chapman and Hall, Ltd	London, England	1988	213-221
77	Evans, L. T. and M. Rossen	Earthquake Damage to Masonry Structures and Their Repair	Journal of American Concrete Institute	American Concrete Institute	Farmington Hills, MI	1933	129-136
78	Fazio, G. and D. Tando	A Particular Defect of an Old Masonry Building	Dealing with Defects in Buildings	Intl. Council for Building Research Studies	Rotterdam, Netherlands	1994	511-524
79	Fearn, James	Effect of Herbicides on Masonry	PB-281 563	Natl. Technical Information Service	Springfield, VA	May 1978	
30	Fedorov, V.	Some Problems of the Conservation of Masonry	Translation No. 558	Property Services Agency, DOE	London, England	11976	
31	Feilden, Bernard M.	Conservation of Historic Building		Butterworth Scientific	Boston, MA	1982	
32	Feldman, Edwin B.	Building Design for Maintainability		McGraw-Hill Book Company	New York, NY	1975	
267	Ferriday, Virginia Guest	Last of the Handmade Buildings: Glazed Terra Cotta in Downtown Portland		Mark Publishing Company	Portland, OR	1984	
33	Ferro, Maximilian L.	Russack System for Brick and Mortar Description	Technology and Conservation	Technology Organization, Inc.	Boston, MA	Sum. 1980	32-34
34	Fling, Russell S.	Repair of 7-Story Bearing Wall	Journal of the Construction Division	American Society of Civil Engineers	Reston, VA	July 1969	39-48
35	Freedman, O. M.	Preserving the Truly Ancient Monuments	Building Research and Practice	E&FN Spon	London, England	May 1987	182-185
36	Frohman, D. L.	Repairing Chimney Caps	Masonry Construction	Aberdeen Group	Addison, IL	Oct. 1990	463-464
298	Frohman, D. L.	Seismic Anchoring Old Masonry	Masonry Construction	Aberdeen Group	Addison, IL	May 1991	189-192
299	Frohman, D. L.	Seismic Retrofitting of Unreinforced Masonry	Masonry Construction	Aberdeen Group	Addison, IL	Oct 1990	466-468
37	Fuller, J. D. and J. D. Kriegh	Guide to Pressure Grouting Cracked Concrete and Masonry Structures with Epoxy Resins	AD-755 926	Natl. Technical Information Service	Springfield, VA	Feb. 1973	
38	Fuller, J. D. and J. D. Kriegh	Maintenance and Repair of Concrete and Masonry Structures: Epoxy Pressure Grouting		Construction Engineering, Research Lab	Champaign, IL	July 1971	
327	Fuller, J. D. and J. D. Kriegh	Guide for Pressure Grouting Cracked Concrete and Masonry Structures with Epoxy Resins	Arizona University		Tucson, AZ	Feb 1973	
328	Fuller, J. D. and J. D. Kriegh	Maintenance and Repair of Concrete and Masonry Structures: Epoxy Pressure Grouting	Arizona University		Tucson, AZ	July 1997	
39	Gale, Francis	Stopping Rising Damp	Masonry Construction	Aberdeen Group	Addison, IL	Jan. 1991	
30	Gale, Francis R. and D. W. Boyer	Wyoming Territory Penitentiary Examination of Masonry Materials	Proceedings 5th Canadian Masonry Symposium	University of British Columbia	Vancouver, BC, Canada	June 1989	803-816
31	Garrecht, H et al	Analysis of Moisture Problems in Historic Buildings	8th International Brick / Block Masonry Conference	Elsevier Applied Science	New York, NY	1988	1682-1692
32	Gaskie, Margaret F.	Woolworth Tower: ...A Landmark Restored	Architectural Record	McGraw-Hill	New York, NY	Aug. 1981	
33	Gauri, K. Lal	Conservation of Stone: A Literature Review	Engineering Geology Case History No. 11	Geological Society of America	Boulder, CO	1978	
230	Gauri, K. Lal and Madiraju V.	Certain Epoxies, fluorocarbon-acrylics, and Silicones as Stone Preservatives	Decay and Preservation of Stone	Geological Society Of America	Boulder, CO	1978	73-79
295	Gavarini, C.	Monumental Masonry Buildings in Seismic Zones: Conservation, Restoration, Retrofitting	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	1539-1546
34	Gavarini, Carli	Towards Systematic Seismic Retrofitting of Existing Masonry Buildings in Italy	4th North American Masonry Conference	The Masonry Society	Boulder, CO	Aug. 1987	24
35	George, Eugene	Historic Building Restoration: Demands for Technical Ingenuity	Proceedings 5th Canadian Masonry Symposium	University of British Columbia	Vancouver, BC, Canada	June 1989	781-790
334	Gere, Alex S.	Repair of Exterior Stone on High Rise Buildings	Building Stone Magazine		Purdys, NY	Nov	1989
341	Getz, S. H.	Solving Problems Through Reanchoring	The Construction Specifier	The Construction Specifications Institute	Alexandria, VA	June 1984	72-74
36	Gifford, E. W. H. and P. Taylor	Restoration of Ancient Buildings	The Structural Engineer	Structural Engineer Trading Organization	London, England	Oct. 1964	327-339
268	Gigla, B. and F. Wenzel	Bond Strength of Supplementary Injection Anchors in Historic Masonry	Proceedings No. 8	British Masonry Society	Whyteleafe, England	Oct 1998	327-336
231	Gigla, Birger and Fritz Wenzel	Repair of Historic Masonry Structures by Injection Anchors	11th International Brick/Block Masonry Conference	China Assn. for Engineering, Construction	Shanghai, China	Oct 1997	1154-1167
37	Glock, Edgar F.	Cleaning New Masonry	Masonry	Mason Contractors Assn. of Am.	Lombard, IL	Jan. 1997	15-18
38	Greve, Harold G.	Precast for Terra Cotta	Concrete International	American Concrete Institute	Farmington Hills, MI	Oct. 1986	20-25
39	Grimm, Clayford T.	Masonry Maintenance and Restoration: A Guide to the Literature	Structural Renovation and Rehabilitation of Buildings	Boston Soc. of Civil Engrs	Boston, MA	10/9/79	
100	Grimm, Clayford T.	Effects of Sandblasting and Face Grouting on Water Permeance of Brick Masonry	Masonry: Past and Present, ASTM STP 589	American Soc.for Testing and Materials	W. Conshohocken, PA	1975	255-271
101	Grimm, Clayford T.	How to Keep Old Brick Looking Like New Brick	Buildings	Stamats Communications, Inc.	Cedar Rapids, IA	Sept 1975	66-70
102	Grimm, Clayford T.	Cleaning Masonry: A Review of the Literature		CRC University of Texas at Arlington	Arlington, Texas	Nov. 1988	
113	Grimm, Clayford T.	Clear Consequences	The Construction Specifier	Construction Specifications Institute	Alexandria,VA	May 1993	143-152
104	Grimmer, Anne E.	A Glossary of Historic Masonry Deterioration Problems and Preservation Treatments		National Park Service	Washington, DC	1984	
105	Guedelhofer, O. C. and A. T. Krauklis	To Bond or Not to Bond: Crack Repair Techniques	Concrete International	American Concrete Institute	Farmington Hills, MI	Aug. 1986	10-48
232	Gumpertz, W. H. and S. F. Shipley	Stones Are For Eternity - Or Are They	Dealing with Defects in Buildings, Proc. of Intl. Symposium	CIB	Rotterdam, Netherlands	Sept 1994	645-654
106	Halsall, P. and J. Kataila	Evaluation and Repair of 60-Year-Old Stone Veneer Cladding	4th Conference on Building Science and Technology	Univ. of Waterloo	Waterloo, Ontario, Canada	Feb. 1988	291-306
107	Hamid, A et al	Strengthening of Existing Hollow Brick Masonry Walls	8th Intl. Brick/Block Masonry Conference	Elsevier Applied Science	Norwalk, CT	1988	867-873
233	Hamid, Ahmad	Retrofitting of Historic Stone Masonry Buildings in Egypt: An Experimental Study	8th Canadian Masonry Symposium	University of Alberta	Edmonton, Alberta	May 1998	288-298
343	Hamid, Ahmad A.	Seismic Retrofit of Historic Multiwythr Stone Masonry Walls	8th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1999	56



# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
234	Hanna, S. B.	Use of Organo-silanes for Treatment of Limestone in an Advanced State of Deterioration	Adhesives and Consolidants	Intl. Inst. for Conservation of Historic and	London, England	1984	171-176
108	Harvey, John	Masonry and Brickwork	Conservation of Buildings	John Baker, Ltd.	London, England	1972	97-114
109	Heiman, J. L.	An Evaluation of the Methods of Treating Rising Damp	ASTM STP 779	American Soc. for Testing and Materials	W. Conshohocken, PA	1982	
212	Heiman, J. L.	Serviceability Problems in Repair of Old Sandstone Buildings	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	1547-1554
235	Herget, F. A. and R. W. Crooks	Deterioration and Stabilization of Berea Sandstone on Hamilton County Court House	Masonry: Design and Construction, etc. ASTM STP 1180	American Soc. for Testing and Materials	W. Conshohocken, PA	1993	412-426
111	Hooker, Kenneth A.	Restoring Mortar Joints in Historic Buildings	Masonry Construction	Aberdeen Group	Addison, IL	Oct. 1993	447-450
110	Hooker, Kenneth A.	Surface Grouting to Repair Mortar Joints	Masonry Construction	Aberdeen Group	Addison, IL	Sept 1994	423-425
214	Hueston, Frederick	Re-crystallization: A friend of Marble or Its Foe?	Building Stone Magazine		Purdys, NY	May 1990	32-34
112	Hueston, Frederick M	Stain Removal Guide for Stone		Business News Publishing Company	Troy, MI	1995	
113	Huls, Mary Ellen	Conservation of Stone Buildings and Monuments: A Bibliography	Architectural Series: Bibliography	Vance Bibliographies	Monticello, IL	April 1988	
236	Hunter, Dougal	Bath Stone in Building: Use, Repair, and Conservation	Transactions	Assn. for Studies in Conservation of Historic		1980	45-
114	Hutchins, Nigel	Restoring Houses of Brick and Stone		Van Nostrand Reinhold Company	New York, NY	1982	
350	Hutchins, Nigel	Restoring Houses of Brick and Stone		Van Nostrand Reinhold Company	New York, NY	1982	
237	Hyvert, Giselle	Weathering and Restoration of Borobudur Temple, Indonesia	Decay and Preservation of Stone	Geological Society of America	Boulder, CO	1978	95-100
115	Jaffe, Rochelle	Renovation of Victory Monument Memorial Chapel	8th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1999	37
116	Jagadish, R. and H. S. Bai	Restoration of an 8-Story Apartment Building: A Case Study	8th International Brick/Block Masonry Conference	Elsevier Applied Science	Norwalk, CT	1988	1800-1811
117	Johnson, Byron	Towards a Decision-Making Strategy for Masonry Cleaning	Masonry: Research, Applications, and Problems	American Soc. for Testing and Materials	W. Conshohocken, PA	1985	178-181
118	Kahn, Lawrence F.	Shotcrete Strengthening of Brick Masonry Walls	Concrete International	American Concrete Institute	Farmington, MI	July 1984	
119	Kasimer, Joseph	Preparing Contract Documents for Renovation, Restoration, and Remodeling Projects	The Construction Specifier	Construction Specifications Institute	Alexandria, VA	June 1984	18-21
120	Kaskel, S. B. et al	A Review of Masonry Tuck-pointing Materials and Procedures	Masonry: Esthetics, Engineering, and Economy	American Soc. for Testing and Materials	W. Conshohocken, PA	58-72	
121	Kelley, Stephen J.	Preserving Our Past for the Future	Standardization News	American Soc. for Testing and Materials	W. Conshohocken, PA	Dec. 1990	28-31
122	Kelly, Stephen J. and Timothy M.	ASTM Standards in Masonry Preservation and Restoration	The Construction Specifier	Construction Specifications Institute	Alexandria, VA	Oct. 1998	27-31
315	Kenney, R. J. and R. S. Piper	Urethane Foam Injection as a Method of Remedial Repair for Masonry Cavity Walls	Masonry: Design and Construction, Problems and Repair	American Soc. for Testing and Materials	W. Conshohocken, PA	1993	397-411
352	Kingsley, R. Gregory	Evaluation and Retrofit of Unreinforced Masonry Buildings	3rd National Concrete and Masonry Conference	Portland Cement Association	Skokie, IL	June 1995	709-728
123	Knutsson, Henry H.	Overcladding with Brickwork	Journal of CIB	CIB	Rotterdam, Netherlands	Sept 1987	301-304
289	Koerber, Jeffrey	Restoration of San Jacinto Monument	8th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1999	
124	Koski, John A.	Regular Inspections: An Important Part of Masonry Maintenance	Masonry Construction	Aberdeen Group	Addison, IL	Oct. 1992	391-394
125	Kreh, R. T.	Alteration, Repair, and Maintenance of Masonry	Advanced Masonry Skills	Van Nostrand-Remhold Co.	New York, NY	1978	355-374
126	Krogstad, Norbert V.	Let Ivy Live or Not?	Masonry Construction	Aberdeen Group	Addison, IL	March 1990	113-114
127	Kuhn, Denis G.	Controlling the Cost of Preservation	Architecture	BPI Communications, Inv.	Washington, DC	Nov. 1994	137-141
276	Kumar, Rakesh	Biodeterioration of Stone in Tropical Environments: An Overview		Getty Conservation Institute	Los Angeles, CA	1999	
128	Lauresdorf, L. R. and A. L. Isberner	Masonry: Preventive and Corrective Maintenance	The Construction Specifier	Construction Specifications Institute	Alexandria, VA	Sept 1989	85-92
238	Laurie, A. P.	Stone Preservation and Decay	Journal	Royal Institute of British Architects	London, England	1928	283-289
187	Levine, J. S., D. A. Harris, and C. E.	PStabilization and Repair of a Historic Terra Cotta Cornice	reservation Tech Notes. Masonry No. 2., PB92-163427INZ	National Technical Information Service	Springfield, VA	Sept 1991	
239	Lewin, S. Z.	Preservation of Natural Stone, An Annotated Bibliography	Art and Archaeology Technical Abstracts	J. Paul Getty Trust	Los Angeles, CA	1966	183-272
241	Lewin, S. Z.	Recent Experience with Chemical Techniques of Stone Preservation	Treatment of Stone	Proc. of Joint Committee for Conservation	Bologna, Italy	Oct 1971	139-144
240	Lilley, D. M. and A. V. March	Methods for Investigation and Repair of Old Random Rubble Filled Masonry Walls	Proceedings	British Masonry Society	Whyteleafe, England	Oct 1998	337-341
333	Lissel, Shelley et al	Testing of Diaphragm Wall Post Tensioned with Carbon Fiber Reinforced Polymers (CFRP)	8th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1999	14
129	Livingston, R., S. Fitx, and N. Baer	NATO-CCM Piolet Study on Conservation of Brick Monuments	5th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	805-812
307	Locke, Reginald A.J. and Gene Wedell	Modular Dynamic Connection System for Seismic Retrofitting of Unreinforced Masonry	8yh North American Masonry Conference	The Masonry Society	Boulder, CO	June 1999	77
130	London, Mark	Masonry: How to Care for Old and Historic Brick and Stone		Preservation Press	Washington, DC	1988	
196	MacDonald, J. and K. H. Tonge	Effects of Chemical Cleaning Processes on Scottish Sandstones	Conservation Science in the UK	James and James Science Publishers Ltd	London, England	May 1993	11-14
194	MacDonald, J. B. et al	Chemical Cleaning of Sandstone: Comparative Laboratory Studies	Proceedings of the International Conference, Edinburgh	Donhead Publishing Ltd	Shaftesbury, Dorset, UK	April 1992	
131	Macgregor, John E. M.	Outward Leaning Walls		Soc. for Protection of Ancient Bldg.	Cambridge, England	May 1971	
132	Mack, Robert C. and J. P. Speweik	Repointing Mortar Joints in Historic Masonry Buildings	Stone World		Saddle Brook, NJ	Feb. 1999	93-110
308	Mack, Robert C et al	Repointing Mortar Joints in Historic Brick Buildings	Preservation Briefs: 2	Superintendent of Documents	Washington, DC	Sept 1980	
133	Mamillan, Marc	Terra Cotta, Coatings, and Mortars	Pathology of Building Materials	Intl. Center. of the Study of the	Rome, Italy	1970	53

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
134	Marino, G. and W. Gamble	Repair and Strengthening of Subsidence Damaged Block Foundation Walls	5th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	827-838
242	Martin, D. G.	Maintenance and Repair of Stone Buildings		Church Information Office, Church House	London, England	1970	
135	Maslow, Philip	Protecting Masonry Structures Against Graffiti Damage	Plant Engineering	Cahners Publishing Co.	Des Plaines, IL	5/16/74	141-147
320	Masoini, Nicola	Stony Maserials in Historical Building of Basilicata	11th International Brick/Block Masonry Conference	China Assn. of Engr. Construction	Shanghai, China	Oct 1997	1072-1081
136	Mathys, John H, and J. L. Noland	Evaluating, Strengthening and Retrofitting Masonry Buildings		The Masonry Society	Boulder, CO	Oct 1989	
137	McNulty, Kevin	Floor Brushes and Natural Stone Cleaning	Stone World		Saddle Brook, NJ	BG 2000	68-74
138	Meggors, Edith R.	Selected Bibliography on Building Construction and Maintenance	BMS 140	NIST	Gaithersburg, MD	1/15/59	
292	Melbourne, C	Conservation of Masonry Arch Bridges	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	1563-1570
139	Menges, Gary L.	Historic Preservation: A Bibliography	No. 79	Vanve Bibliographies	Monticello, IL	May 1969	
183	Mnif, T. and G. Ballivy	Technical Assessment of Methods of Pressure Grouting Historical Masonry Structures - A Final	MIC-97-04199INZ	National Technical Information Service	Springfield, VA	1995	
293	Modena, C et al	Diagnosis and Strengthening of an Ancient Bell Tower	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	1571-1578
319	Montagna, Romualdo	Modern Investigation Techniques for Restoration of Ancient Buildings of Stone or Brick Masonry	11th International Brick/Block Masonry Conference	China Assn. of Engr. Construction	Shanghai, China	Oct 1997	1082-1091
140	Moore, Leslie T.	Structural Care of Ancient Churches	The Builder			6/20/47	619-622
296	Morden, M. R. and D. Slaton	Restoring Terra Cotta	Masonry Construction	Aberdeen Group	Addison, IL	June 1993	249-264
324	Mourad, Sherif and F. A. El-Hakim	Evaluation of Structural Integrity of Damaged Masonry Building	Journal of Performance of Constructed Facilities	American Society of Civil Engineers	Reston, VA	May 1996	73-78
243	Munnikendam, R. A.	Combination of Low Viscosity Epoxy Resins and Siliconesters for Consolidation of Stone	Treatment of Stone	Proc. of Joint Committee for Conservation	Bologna, Italy	Oct 1971	197-200
141	Myhre, Alf M.	Maintenance of Industrial Buildings	Modern Masonry	Building Research Institute	Washington, DC	1956	103-113
347	Naaseh, Simin	Seismic Retrofit of San Francisco City Hall: The Roll of Masonry and Concrete	3rd National Concrete and Masonry Conference	Portland Cement Assocoation	Skokie, IL	June 1995	769-796
359	Nelson, Lee (Ed)	Early American Brick Masonry and Restoration of Exterior Brick Walls	Historic Structures Training Conference	National Park Service	Washington, D. C.	1963	p. 40
244	Nelva, R. and F. Astrua	Analysis of the Behavior and Defects in Thin Stone Cladding	Dealing with Defects in Buildings, Proc. of Intl. Symposium	CIB	Rotterdam, Netherlands	Sept 1994	405-416
245	Nishiura, Tadateru et al	Treatment of Stone with Synthetic Resins for Protection Against Damage by Freeze-Thaw Cycles	Adhesives and Consolidants	Intl. Inst. for Conservation of Historic and	London, England	1984	156-159
142	O'Connor, Joe	Preservation through Restoration	Specification Associate			MARCH	
143	O'Neil, Edward F.	Repainting Masonry in Older Buildings	REMR Bulletin	US Army Waterways Experiment Station	Vicksburg, MS		
185	O'Neil, Edward F.	Repair and Maintenance of Masonry Structures - Case Histories	AD-A294 186/2INZ	National Technical Information Service	Springfield, VA	Mar 1995	
294	Page, J et al	Deterioration and Repair of Masonry Arch Bridges	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	1591-1598
144	Parducci, A and R. Vaselli	Structural Rehabilitation of Palazzo Valadier in Rome	8th International Brick/Block Masonry Conference	Elsevier Applied Science	New York, NY	1988	1812-1823
291	Park, Sharon C.	Use of Substitute Materials in Building Preservation Projects	Technology and Conservation	Technology Organization, Inc.	Boston, MA	1992-93	24-33
145	Parkinson, G. et al	Appraisal & Repair of Masonry		Thomas Telford Ltd.	London, England	1996	
146	Perander, Thorborg and T. Raman	Deterioration of Old Brickwork Due to Salt Effects and Brickwork Preservation	Intl. Conf. on Durability of Building Materials and Components	Technical Research Center of Finland	Espoo, Finland	1984	463-477
147	Peters, C. A.	Maintenance of Public Buildings	Modern Masonry	Building Research Institute	Washington, DC	1958	115-123
148	Plecnik, Joseph et al	Strengthening of Unreinforced Masonry Buildings	Journal of Structural Engineering	American Society of Civil Engineers	Reston, VA	May 1986	1070-1087
207	Pombo, Fernandez et alAberdeen,	Removal and Analysis of Soluble Salts from Chemically Cleaned Sandstones	Proceedings of Swapnet 1997	Imperial College Press	Aberdeen, Scotland	May 1997	77-89
246	Popovic, P. L. and R. C. Arnold	Reanchoring Limestone Wall Panels	Masonry Construction	Aberdeen Group	Addison, IL	May 1992	178-180
149	Powys, A. R.	Masonry, Brickwork, and Walls Generally	Repair of Ancient Buildings	Society for Protection of Ancient Bldg.	London, England	1981	39-
354	Prawel, S. P.	Ferrocement as a Surface Coating for Seismic Upgrading of Old Unreinforced Brick Masonry Walls:	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	929-939
247	Price, C. A.	Consolidation of Limestone Using Lime Poutlice and Lime Water	Adhesives and Consolidants	Intl. Inst. for Conservation of Historic and	London, England	1984	160-162
278	Price, C. A.	Stone Conservation: An Overview of Current Research		Getty Conservation Institute	Los Angeles, CA	1996	
297	Prowel, S. R. et al	Ferrocement as a Surface Coating for Seismic Upgrading of Old Unreinforced Brick Walls	9th International Brick/Block Masonry Conference	Deutsche Gesellschaft fur Mauerwerksbau	Bonn, Germany	Oct 1991	929-939
248	Purcell, Donovan	Stone Preservation in Europe and the British Isles	Bulletin	Association for Preservation Technology	London, England	1971	65
184	Rao, R. S., P. Gergely, and R. N.	Retrofit of Non-Ductile Reinforced Concrete Frames Using Friction Dampers	PB97-133508INZ	National Technical Information Service	Springfield, VA	Dec. 1995	
305	Ray Ajay	State of Art in Seismic Mitigation in Los Angles City	4th International Seminar on Structural Masonry in Developing	Tata McGraw-Hill Publishing Company	New Deli, India	1992	257-261
150	Reger, Harry	Matching Existing Brickwork	Masonry Construction	Aberdeen Group	Addison, IL	Jan. 1996	28-32
209	Reis, Michael	Exchanging Information about Stone Conservation	Stone World	Deutsche Gesellschaft fur Mauerwerksbau	Saddle Brook, NJ	May 1994	120-127
249	Riederer, Josef	Recent Advances in Stone Conservation in Germany	Decay and Preservation of Stone	Geological Society of America	Boulder, CO	1978	89-93
151	Riva, Gianna et al	Use of Sonic Wave Technique for Estimating Efficiency of Masonry Consolidation by Injection	11th International Brick/Block Masonry Conference	China Assn. for Engineering Construction	Shanghai, China	Oct. 1997	28-39
200	Roberts, M. and D. C. M. Urquhart	Stone Cleaning and Stone Decay	Research Report	Robert Gordon University	Aberdeen, Scotland	1995	
213	Roessler, David	Restoring Granite and Limestones	The Construction Specifier	Construction Specifications Institute	Alexandria, VA	July 1990	81-83

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
152	Rossi-Doria, P. Rota	Mortars for Restoration: Basic Requirements and Quality Control	Materials and Structures	RILEM	Cachan Cdex, France	Nov. 1986	445-448
250	Rossi-Manaresi, Raffaella and Antonella	Treatment of Calcite-Cemented Sandstone with Acrylic-Siliconate Mixture in Limewater	Adhesives and Consolidants	Intl. Inst. for Conservation of Historic and	London, England	1984	163-166
335	Rossi-Manaresi, Raffaella (Ed)	The Conservation of Stone II (Bibliography)	International Symposium	Centro per La Conservazione Delle Sculture	Bologna, Italy	1981	
288	Rousseau, M. Z. and A. H. P.	Rehabilitation of Solid Masonry Walls	Construction Canada	NIB Publisher	West Toronto, Ontario	May 1990	15-20
153	Ruth, Wayne and Mi. P. Schuller	Masonry Repair by Grout Injection	Masonry Construction	Aberdeen Group	Addison, IL	Sept 1996	408-413
154	Sabinis, Gajanan (Ed)	Rehabilitation, Renovation, and Preservation of Concrete and Masonry Structures		American Concrete Institute	Farmington Hills, MI	1985	
251	Salamon, Roger	Do's and Don'ts of Slate Preservation	Stone World		Saddle Brook, NJ	June 1993	90-
155	Sanders, Arthur L.	Caring for Glazed Brick	The Construction Specifier	Construction Specifications Institute	Alexandria, VA	April 1995	83-87
252	Schaffer, R. J.	Weathering, Preservation, and Restoration of Stone Buildings	Journal	Royal Society of arts	London, England	May 1955	843-867
156	Schierhorn, Carolyn	Repairing Concrete Masonry Basements	Masonry Construction	Aberdeen Group	Addison, IL	June 1993	260-262
158	Schuller, M. P. and C. T. Grimm	Masonry Repair by Grout Injection	7th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1996	449-457
157	Schuller, Mi. P. and W. Ruth	Repairing Common Masonry Problems by Grout Injection	7th International Conference. on Structural Faults and Repair	Engineering Techniques Press		July 1997	303-306
159	Sharp, B.	Refurbishment of Retaining Walls Using Cellular Wall Construction	8th International Brick/Block Masonry Conference	Elsevier Applied Science	Norwalk, CT	1988	1824-1835
160	Shear, Mel A.	Handbook of Building Maintenance Management		Reston Publishing Company, Inc.	Reston, VA	1983	
161	Sheirhorn, Carolyn	Telling Owners about Masonry Maintenance	Masonry Construction	Aberdeen Group	Addison, IL	May 1995	222-224
162	Sivinski, Valerie	Masonry Maintenance	Architectural Technology			Fall 1985	25-26
253	Sleater, G.	Development of Performance Criteria for Selection of Stone Preservatives	PB-282 873/9ST	National Technical Information Service	Springfield, VA	1978	
254	Sleater, G.	Development of Performance Criteria for Selection of Stone Preservatives	Decay and Preservation	Geological Society of America	Boulder, CO	1978	65-71
255	Sleater, G.	Review of Natural Stone Preservatives	COM-74-10548/7	National Technical Information Service	Springfield, VA	Dec 1973	
256	Sleater, G.	Preliminary Performance Criteria for Stone Preservatives	PB-285 142/6ST	National Technical Information Service	Springfield, VA	1977	
216	Sleater, Gerald A.	Stone Preservation: Methods of Laboratory Testing and Preliminary Performance Criteria	Supt. of Documents, US Government Printing Office	Supt. of Documents, US Government	Washington, DC	1977	
163	Smith, Baird M.	Moisture Problems in Historic Masonry Walls: Diagnosis and Treatment		National Park Service	Washington, DC	1985	
164	Smith, Frank M.	Restoration of Masonry	Building Research	Building Research Advisory Board	Washington, DC	Sept 1964	
165	Smith, Frank R.	Restoration of Masonry	The Restoration Manual	Silvermine Publishers Inc.	Norwalk, CT	1966	132-140
166	Sourlis, T.	Restoration of the John J. Glessnes House	Masonry: Materials, Design, Construction, and Maintenance	American Soc. for Testing and Materials	W. Conshohocken, PA	July 1988	251-256
167	Sowden, A M (Ed)	Maintenance of Brick and Stone Structures		E & FN Spoon	New York, NY	1990	
257	Strangstad, Lynette	Patching Limestone & Marble	Old-House Journal		Brooklyn, NY	July 1983	133-164
168	Stumes, Paul	Epoxy Resins for Restoration of Historic Structures	Bulletin	Association for Preservation Technology		1971	59-63
169	Suprenant, Bruce A.	Restoring Old Stone	Masonry Construction	Aberdeen Group	Addison, IL	June 1989	222-224
170	Suter, G. T. and A. H. P.	A Load-bearing Clay Brick Masonry Deterioration Problem	5th Canadian Masonry Symposium	University of British Columbia	Vancouver, BC, Canada	June 1989	757-770
258	Suter, G. T. and X. Song	Review of Historic Stone Masonry Properties	7th Canadian Masonry Symposium	McMaster University	Hamilton, Ontario	June 1995	872-883
306	Taghdi, Mustafa et al	Seismic Retrofitting of Existing Low-Rise Masonry Walls by Steel Strips	8th Canadian Masonry Conference	University of Alberta	Edmonton, Alberta	May 1998	115-125
171	Thomasen, S. E. and C. S. Ewart	Strengthening of Ornamental Elements on Historic Buildings	4th North American Masonry Conference	The Masonry Society	Boulder, CO	Aug. 1987	72
172	Tiller, de Teel Patterson	Preservation of Historic Glazed Architectural Terra Cotta	Preservation Briefs	Department of the interior	Washington, DC	June 1979	
300	Tomazevic, Mina et al	Aseismic Strengthening of Historic Stone Masonry Buildings by Building with Friendly Technology	Journal	The Masonry Society	Boulder, CO	Aug 1994	41-56
344	Tomazevic, Mina et al	Seismic Retrofit of Stone Masonry House: Learning from Earthquakes	8th North American Masonry Conference	The Masonry Society	Society	June 1999	58
331	Triantafillou, T. C.	Strengthening of Masonry Structures Using Epoxy-Bonded FRP Laminates	Journal of Composites for Construction	American Society of Civil Engineers	Reston, VA	May 1998	96-104
173	Trimble, Brian E.	Maintenance and Cleaning of Brick Masonry Structures	Maintenance of Plant Facilities				
174	Tuppurainen, T.	Repair and Maintenance of Facades	3rd Intl. Conf. on Durability of Building Materials and	Technical Research Center of Finland	Espoo, Finland	1984	290
260	Turner, Susan	Resourceful Approach to Stone Cleaning	Stone World		Saddle Brook, NJ	May 1995	126-131
269	Tutt, J. M. et al	Strength of Replacement Wall Ties	8th International Brick/Block Masonry Conference	Elsevier Applied Science	New York, NY	1988	1836-1846
190	Urquhart, D. C. M.	A Review of Stone Cleaning: Research and Practice	ASI Journal	ASI		Sept 1994	
204	Urquhart, D. C. M. and Young, M. E.	Conservation of Granite Buildings and Monuments	Journal of Architectural Conservation	Donhead Publishing Ltd	Shaftesbury, Dorset, UK	1998	
191	Urquhart, D. C. M. et al	A Field Investigation of Algi Growths and Biocide Efficacy on Sandstone Buildings and Monuments	Journal of Architectural Conservation	Donhead Publishing Ltd	Shaftesbury, Dorset, UK	Mar 1996	55-73
201	Urquhart, D. C. M. et al	Stone Cleaning of Granite Buildings	Historic Scotland Technical Advice Note No. 9	The Stationery Office	Edinburgh, Scotland	1997	
345	Uzarski, Joe	Seismic Retrofit of Unreinforced Masonry Buildings	3rd National Concrete and Masonry Conference	Portland Cement Association	Skokie, IL	June 1995	685-696
325	van Gemert, D. A.	Strengthening by Injection	Journal of CIB	E&FN Spoon	London, England	Nov. 1987	359-364

# Maintenance, Preservation, Rehabilitation, Renovation, Repair, Restoration, Retrofit, and Related Terms: A Masonry Bibliography

Clayford T. Grimm PE Inc.  
Austin, Texas December 9, 1999

Item	Author	Title	Publication	Publisher	City, State	Date	Page
175	Vasic, R. and P. Petrovic	Defects on Facade Brick Walls: Investigations, Checking, and Recommendations for Repairing	Dealing with defects in Buildings	CIB	Rotterdam, Netherlands	Sept 1994	417-422
192	Wakefield, R. D. et al	Investigations of Decayed Sandstone Colonized by a Species of Trentepolia	Aerobiologia	Elsevier Applied Science	Norwalk, CT	1996	12
206	Wakefielf, R. D. et al	Effect of Chemical Biocides on Sandstone	Proceedings of Conservation Science in the UK	Hunterian Art Gallery	Glasgow, Scotland	Sept 1995	
176	Walsh, Edward R.	Facility Maintenance: Grounds for Liability	Building Operating Management	Milwaukee, WI		Feb. 1980	12-15
321	Warnecke, Peter	Load Bearing Capocacity of Historical Masonry	11th International Brick/Block Masonry Conference	China Assn. of Engrn. Construction	Shanghai, China	Oct 1997	1062-1071
177	Warnes, A. R.	Building Materials: Their Discoloration, Decay, Cleaning, and Reparation	Journal Inc. Clerks of Works Assn.		London, England	1938	154-157
274	Warren, John	Conservation of Brick (Bibliography)		Butterworth Scientific	Boston, MA	1999	
336	Weaver, Martin E.	Restoring Stonework, Part I: Research	Construction Specifier	Construction Specifications Institute	Alexandria, VA	Sept 1989	141-143
318	Weaver, Martin E.	Restoring Stonework, Part II: Remedies	Construction Specifier	Construction Specifications Institute	Alexandria, VA	Oct 1989	43-47
189	Webster, R. G. M. (Ed.)	Stone Cleaning and the Nature, Soiling, abd Decay Mechanism of Stone	Proceedings of the International Conference, Edinburgh	Donhead Publishing Ltd	Shaftesbury, Dorset, UK	April 1992	
198	Webster, R. G. M. et al	Stone Cleaning in Scotland: Research Summary	Research Report	Gilcomston Litho	Aberdeen, Scotland	1992	
186	Wegner, C. I. and E. F. Burnett	Renovation Strategies for Brick Veneer Steel Stud Wall Construction, Task 4 - Dinal Remedial Tie	MIC-97-03367INZ	National Technical Information Service	Springfield, VA	1994	
272	Weiss, Norman R.	Exterior Cleaning of Historic buildings		National Park Service	Washington, DC	1977	
259	Wendler, E. et al	Consultation and Hydrophobic Treatment of Natural Stone	5th Intl. Conference on Durability of Building Materials and	Building Research Establishment	Garston, Watford, England	Nov 1990	
261	Wiesen, Robert J	Stone Design, Installation, and Maintenance: Acceptable or Unacceptable	Stone World		Saddle Brook, NJ	Nov 1994	42
312	Williams, Mark F. and B L Williams	Study of the Performance and Repair of a Masonry Veneer Cavity Wall Construction	4th International Masonry Conference	British Masonry Society	Whyteleafe, England	1975	191-197
262	Wolk, Diane R.	A Practical View of Marble Care	Stone World		Saddle Brook, NJ	BG1999	36-42
263	Wolske, Detlev	Stone and Marble Care	Building Stone Magazine		Purdys, NY	Jan 92	33-35
316	Woodland, Donald J.	Maintenance of Brick Exterior Walls: A Management Concept	6th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1993	803-814
178	Wright, J. A.	Repair and Preservation of Masonry	Journal	Royal Institute of British Architects	London, England	1949	121-125
179	Yeatman, H. W.	Survey and Approach to Restoration of Damaged Buildings	Bulletin	NZ Soc. for Earthquake Engineering.	New Zealand	1969	85-91
205	Young, M. E.	Stone Cleaning of Granite Buildings and Monuments: Use of Colour Measurements in Stone Cleaning	Conservation Science in the UK	James and James Science Publishers Ltd	London, England	May 1993	
199	Young, M. E. and C. Maclean	Stone Cleaning in Scotland: Literature Review	Research Report	Gilcomston Litho	Aberdeen, Scotland	1992	
195	Young, M. E. and D. C. M. Urquhart	Abrasive Cleaning of Sandstone Buildings and Monuments: An Experimental Investigation	Proceedings of the International Conference, Edinburgh	Donhead Publishing Ltd	Shaftesbury, Dorset, UK	April 1992	
203	Young, M. E. and D. C. M. Urquhart	Algal Growth on Building Sandstone: Effects of Chemical Stone Cleaning Methods	Quarterly Journal of Engineering Geology			1998	315-324
208	Young, M. E. and P. E. Cordiner	Effects of Chemical Cleaning on Consolidant and Water Repellent Treated Sandstones	Proceedings of Swapnet 1998		Budapest, Hungary	May 1998	
180	Young, Robert A.	Exterior Pavement Maintenance	Through the Ages	Marble Institute of America	Columbus, MD	Dec. 1986	20
181	Zamecnic, F	Transformation of an 1893 Masonry Building into a Modern Computer Facility	5th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	771-782
182	Zarnic, R	Restoration of Historic Masonry Buildings in Yugoslavia	5th North American Masonry Conference	The Masonry Society	Boulder, CO	June 1990	793-804