

Subject Index

A

Acoustic emissions, 175
 Adhesion, glazes, 319
 Air infiltration, 235
 Allowable stress design, 186
 Alteration crusts, cleaning, 376
 Aluminum
 cast, terra cotta dome reconstruction, 294
 windows, 235
 American Institute of Architects, 100
 American Society of Civil Engineers, standards,
 structural condition assessment, and
 rehabilitation, 126
 Analysis
 ancient mortars, 275
 mortars, 285
 Anisotropic, 175
 Architectural conservator, role in architectural
 preservation firm, 72
 Architectural preservation firm, architectural
 conservator role, 72
 Architecture
 stained glass, 264
 twentieth century building materials and
 systems, 353
 Art, stained glass, 264
 Asbestos
 exposure to, 401
 identification and remediation, 427

B

Brick
 cleaning, 367
 decking, 201
 historic structure preservation and
 rehabilitation, 337
 salvage, 337
 Building assessment, systems approach, 137
 Building failures, 149
 Building materials
 hazardous, exposure to, 401
 twentieth century, historical significance, 353
 Building systems, twentieth century, historical
 significance, 353

Building technology
 ancient mortars, 275
 architectural conservator role, 72
 ASCE standards, 126
 cast iron columns, 186
 certification for, 100
 composite floor systems, 201
 conservation engineer role, 85
 disaster preparedness, 149
 earthquake, 168
 exposure to hazard materials, 401
 hazardous waste disposal, 418
 identification and remediation of hazardous
 materials, 427
 marble and limestone, 376
 marble column and beams, 216
 mechanical and electrical systems in pre-1940
 structures, 248
 replacement brick, 337
 stained glass, 264
 stone cladding, 367
 strategic framework, 64
 systems approach, 137
 terra cotta, 307
 dome, 294
 glazes, 319
 traditional versus contemporary, 45
 twentieth century building materials and
 systems, 353

C

Cast iron, columns, capacity determination, 186
 Certification, for preservation and rehabilitation,
 100
 Charleston, South Carolina, historic, Hurricane
 Hugo damage recordation and retrieval,
 149
 Chloride test, 119
 Clay tile decking, 201
 Cleaning
 gypsum alteration, 376
 stone cladding, evaluation, 367
 Coatings, terra cotta, 319
 Coefficient of thermal expansion, glazes, 319
 Columns, cast iron, capacity determination, 186

Composite floor system, 201
 Computer simulation, 119
 Concrete
 decking, 201
 reinforced, 119
 Concrete and steel framed floors, 201
 Condensation resistance factor, 235
 Condition analysis, stained glass, 264
 Condition survey, 201
 Conservation
 hazardous waste disposal, 418
 stained glass, 264
 standards, strategic framework, 64
 terra cotta, 307
 training, 72
 twentieth century building materials and systems, 353
 Conservation engineer, role, 85
 Cost estimates, stained glass conservation, 264
 Cultural resources, 7
 management, historic structure reports, 109

D

Damage survey, Charleston, S.C., 149
 Database, computer-automated, 149
 Deflection measurement, 175
 Design, mechanical and electrical systems in pre-1940 structures, 248
 Disaster mitigation, 149
 Disaster preparedness, Charleston, S.C., 149
 Documentation
 historic structure reports, 109
 National Trust for Historic Preservation, 23
 twentieth century building materials and systems, 353
 Driard Hotel, 307
 Dusts, exposure to, 401
 Dynamic/vibration evaluation, 175

E

Earthquake, building technology, 168
 Easements, 23
 Educational programs, 100
 Electrical systems, pre-1940 structures, repairing, retrofitting and maintaining, 248
 Emergency stabilization, 149
 Energy analysis, windows, 235
 Energy model, 137
 Engineering, conservation, 85
 Environmental hazards, identification and remediation during preservation or rehabilitation, 427

Epoxy pressure injection, marble column and beam repair, 216
 Ethical principles, 7
 Evaluation
 ancient mortars, 275
 architectural conservator role, 72
 ASCE standards, 126
 cast iron columns, 186
 certification for, 100
 composite floor systems, 201
 conservation engineer role, 85
 disaster preparedness, 149
 exposure to hazard materials, 401
 hazardous waste disposal, 418
 identification and remediation of hazardous materials, 427
 marble and limestone, 376
 marble column and beams, 216
 mechanical and electrical systems in pre-1940 structures, 248
 replacement brick, 337
 stained glass, 264
 stone cladding, 367
 strategic framework, 64
 systems approach, 137
 terra cotta, 307
 dome, 294
 glazes, 319
 traditional versus contemporary, 45
 twentieth century building materials and systems, 353
 Expert qualifications, mechanical and electrical systems in pre-1940 structures, 248

F

Facades
 cleaning, 367
 restoration, waste disposal, 418
 Federal buildings, seismic evaluation and rehabilitation standards, 168
 Finishes, historic, 72
 Flat clay-tile arch, 201
 Floor construction, archaic, analysis and testing, 201
 France, restoration, 45
 Freeze-thaw cycles, glazes, 319

G

Geological evaluation, stone cladding, 367
 Glass, windows, 235
 Glazes, terra cotta, 319
 Glazing, windows, 235
 Graphics, computer-automated, 149

Ground penetrating radar, 119
Gypsum, alteration on marble and limestone, 376

H

Half-cell potential, 119
Hazardous materials
 exposure during renovation, 401
 identification and remediation, 427
 waste disposal, 418
Historic properties, standards for treatment of
 historic properties, 7
Historic structure report, National Park Service,
 109
Hôtel du Breuil St. Germain, 45
Hurricane Hugo, historic Charleston, damage
 recording and retrieval, 149

I

Identification, of hazardous materials, 427
In situ repair, epoxy pressure injection, 216
Installation, mechanical and electrical systems in
 pre-1940 structures, 248
Interagency Committee on Seismic Safety in
 Construction, 168
Investigation, mechanical and electrical systems
 in pre-1940 structures, 248

L

Lead
 exposure to, 401
 identification and remediation, 427
Life cycle cost analysis, windows, 235
Limestone, gypsum alteration, 376
Load and resistance factor design, 186
Load-bearing capacity, cast iron columns, 186
Load test, 201

M

Maintenance, mechanical and electrical systems in
 pre-1940 structures, 248
Marble
 column and beams, repair by epoxy pressure
 injection, 216
 gypsum alteration, 376
Marché à Reims, 45
Marks & Spencer Building, 307
Masonry, 119
 ancient mortars, 275
 see also Terra cotta
Massachusetts State House, 216
Materials, historic, 72

Mechanical properties, determination, 175
Mechanical systems, pre-1940 structures,
 repairing, retrofitting and maintaining, 248
Modern structures, restoration, 45
Moisture content, 119
Mold
 exposure to, 401
 identification and remediation, 427
Mortars
 additives, 285
 ancient, instrumental analysis, 275
 testing, 285

N

National Earthquake Hazards Reduction Program
 Reauthorization Act, 168
National Historic Landmarks, 7
National Park Service, guideline for historic
 structure reports, revision, 109
National Register of Historic Places, 7
National Trust for Historic Preservation,
 documentation, 23
Nondestructive evaluation and testing
 standards for evaluation, 119
 wood buildings, 175

O

Orthotropic, 175

P

Petrography, ancient mortars, 275
Philosophical principles, 7
Polychlorinated biphenyls
 exposure to, 401
 identification and remediation, 427
Porosity, ancient mortars, 275
Preservation, 175
 ancient mortars, 275
 architectural conservator role, 72
 ASCE standards, 126
 cast iron columns, 186
 certification for, 100
 composite floor systems, 201
 conservation engineer role, 85
 disaster preparedness, 149
 education, 100
 exposure to hazard materials, 401
 hazardous waste disposal, 418
 historic structure reports, 109
 identification and remediation of environmental
 hazards, 427
 marble and limestone, 376

Preservation—*continued*

- marble column and beams, 216
- mechanical and electrical systems in pre-1940 structures, 248
- mortars, 285
- nondestructive testing evaluation standards, 119
- replacement brick, 337
- stained glass, 264
- standards for treatment, 7
- stone cladding, 367
- strategic framework, 64
- systems approach, 137
- terra cotta, 307
 - dome, 294
 - glazes, 319
- traditional versus contemporary, 45
- training, 100
- twentieth century building materials and systems, 353
- windows, 235

Preservation architect, 72

Pretreatment, hazardous waste disposal, 418

Private historic properties, 23

Public historic house museum properties, 23

Public Law 101-614, 168

R

Reconstruction, standards for treatment, 7

Rehabilitation

- ancient mortars, 275
- architectural conservator role, 72
- ASCE standards, 126
- cast iron columns, 186
- certification for, 100
- composite floor systems, 201
- conservation engineer role, 85
- disaster preparedness, 149
- hazardous material exposure, 401
- identification and remediation of environmental hazards, 427
- marble and limestone, 376
- marble column and beams, 216
- mechanical and electrical systems in pre-1940 structures, 248
- replacement brick, 337
- seismic, 168
- stained glass, 264
- standards for treatment, 7
- stone cladding, 367
- strategic framework, 64
- systems approach, 137
- terra cotta, 307
 - dome, 294
 - glazes, 319

- traditional versus contemporary, 45
- twentieth century building materials and systems, 353
- window, 235

Remediation, of hazardous materials, 427

Renovation

- cast iron columns, 186
- hazardous material exposure, 401

Repair, terra cotta, 307

Restoration

- cast iron columns, 186
- facades, waste disposal, 418
- mortars, 285
- replacement brick, 337
- stained glass, 264
- standards for treatment, 7

Reuse, terra cotta, 307

Royal Institute of British Architects, 100

S

Salvage

- brick, 337
- terra cotta, 307

Sealants, windows, 235

Secretary of the Interior, standards for treatment of historic properties, 7

Seismic evaluation, 126

Silica, exposure to, 401

Spalls, terra cotta, 319

Specifications

- mechanical and electrical systems in pre-1940 structures, 248
- stained glass, 264

Stabilization, conservation engineer role, 85

Stained glass, conservation, 264

Staining, stone cladding, 367

Standards

- ancient mortars, 275
- architectural conservator role, 72
- ASCE, structural condition assessment and rehabilitation, 126
- composite floor systems, 201
- conservation strategic framework, 64
- disaster preparedness, 149
- exposure to hazard materials, 401
- hazardous waste disposal, 418
- identification and remediation of hazardous materials, 427
- marble and limestone, 376
- marble column and beams, 216
- mechanical and electrical systems in pre-1940 structures, 248
- for nondestructive testing evaluation, 119
- professional, 100

replacement brick, 337
 seismic safety, 168
 stained glass, 264
 stone cladding, 367
 terra cotta, 307
 dome, 294
 glazes, 319
 twentieth century building materials and
 systems, 353
 Static, 175
 Steel windows, 235
 Stone, repair by epoxy pressure injection, 216
 Stone cladding, cleaning method evaluation, 367
 Strain measurement, 175
 Strategic framework, conservation standards, 64
 Stress wave analysis, 175
 Structural analysis programs, 175
 Structural capacity, 201
 Structural performance, windows, 235
 Structural stability, 85
 Surface soil, cleaning, 367

T

Terra cotta
 cleaning, 367
 dome, replacement material selection, 294
 glaze repairs, testing and analysis, 319
 salvage and reuse, 307
 Test wall, 119
 Thermal analysis, ancient mortars, 275
 Thermal performance, windows, 235
 Tiffany windows, conservation, 264
 Times Building, 307
 Treatment decisions
 historic structure reports, 109
 standards for treatment of historic properties, 7
 strategic framework, 64
 systems approach, 137

U

Ultrasonics, 175
 Ultraviolet light, glazes, 319

V

Variances, mechanical and electrical systems in
 pre-1940 structures, 248
 Veneer, cleaning, 367
 Victoria, British Columbia, 307
 Victoria Eatons project, 307
 Vinyl windows, 235
 Visual evaluation, 175
 Volatile organic compounds
 exposure to, 401
 identification and remediation, 427

W

Waste disposal, building facade restoration, 418
 Waste stream, 418
 Water penetration, 235
 Water vapor transmission, glazes, 319
 Weathering
 accelerated, glazes, 319
 stone cladding, 367
 Weatherstripping, windows, 235
 Westmoreland County Courthouse, 294
 Winch Building, 307
 Window systems, repair versus replacement, 235
 Wood, material properties, 175
 Wood buildings nondestructive evaluation and
 testing, 175

X

X-ray diffraction, ancient mortars, 275