

Index

A

- Aberdeen, City of, South Dakota, 254
- Access
 - easements, 148
 - to site, 65, 185
- Accessibility, *see* Circulation
- Accuracy, *see* Maps or Data
- Aerial photographs, 54, 102–103, *see also*
 - Remote sensing
- Aesthetics, 254–262, *see also* Visual quality
- Aesthetic principles, *see* Design principles
- Affordable Housing Design Advisor, 15
- Agricultural preservation, 196–206
- Alaska
 - site selection, schools, 52, 55, 57, 64
- Alexander, Christopher
 - A Pattern Language*, 247
- Algorithm, in site selection, 59
- Amenities, 12, 53, 131, 133, 134, 147, 178–179, 186, 189, 191
 - in pedestrian circulation systems, 266
 - views, *see* Visual quality
- American Institute of Architects, 333
- American Institute of Certified Planners, 21
- American Planning Association, 9, 206, 328
- American Real Estate and Urban Economics Association, 328
- American Society of Golf Course Architects, 52
- American Society of Landscape Architects, 334
- Americans with Disabilities Act (ADA), 274
- Arboriculture, International Society of, 133
- Archaeological sites, *see* Site inventory
- Architecture
 - design theory, 252–264, 278–288
 - massing, 191, 281–283, 325
 - precedents, 253, 280
 - programming, 77–79, 89–92
 - proportion, 255–260
 - and site planning, 13, 47, 177–206, 295–300
- Architect Registration Exam (ARE), 21
- Architects, 12, 20–21, 78, 84
 - American Institute of Architects (AIA), 333
- Architectural Record*, 295
- Arendt, Randall
 - Growing Greener: Putting Conservation into Local Plans and Ordinances*, 217
- Articulation, *see* Design theory
- Aspect, *see* Topography
- ASTM (American Society for Testing and Materials), 140
- Aquifer, *see* Hydrology

- Australia
 - Bureau of Meteorology, 116
 - Department of Environment and Waters, 330–331
 - Southern Australia Planning Commission, 204, 246
- Axis, in design, 222, 225, *see also* Design principles
- B**
- Bacon, Edmund
 - Design of Cities*, 213
- Balance, *see* Design principles
- Base maps, 34, *see also* Mapping
- Beauty, in the built environment, 253–254, *see also* Visual quality
- Behavioral settings, 3–4, 187
 - post-occupancy evaluation, 84–85
- Bicycle circulation, *see* Circulation systems
- Bicycling and Walking, National Center for, 332
- Bids, *see* Contract administration
- Biodiversity, 128–138, *see also* Habitat
- Bioinfiltration, *see* Stormwater management
- Biological attributes, *see* Site inventory
- Bioretention, *see* Stormwater management
- Boathouse, siting, 89–98
- Boundaries, property, 30, 34
- Branding, 88–89
- Brownfields, 140
 - redevelopment of, 51–52
- Bubble diagram, *see* Graphic communication
- Buffering, with GIS, 174–175
- Building
 - codes, 124, 302–307
 - design/style, 151, 271
 - design theory, 278–288
 - façade articulation, 259, 280–281, 282–284
 - footprint, 92, 145, 151–153
 - massing, massing, 191, 281–283, 325
 - mistakes, 299–305
 - National Association of Home Builders, 133
 - orientation, 288, 292
 - Pods, or envelopes, 217, 223–224
 - proportion, 255
 - siting, 20, 99–101, 144–146, 152, 177–206, 275–280
 - types, 151
- Built environment, 10
 - shaping the, 3–21
- Burnham, Daniel, 209
- C**
- California
 - Golden Gate bridge, 254
 - Land Use Planning Information Network, 331
 - Monterey, 256
 - Multiattribute Utility Analysis (MUA), 80
 - San Francisco, 55–56, 73–75, 178, 262, 264, 266, 269, 275, 278, 281
 - Santa Monica Mountains, 126
- Canada
 - British Columbia, 151
 - Centre for Topographic Information, 330
 - National Air Photo Library, 331
- Carrying capacity
 - Earth, 4–5,
 - sites, 50–53, 171–172
- Carson, Rachel, 127
- Cartoon, caveman, 24
- Case studies
 - Community planning
 - Indian Trace, Florida, 238–249
 - South Livermore Valley, California, 196–206
 - Cultural resource assessment
 - Stella Maris Monastery, Israel, 165–168
 - Design guidelines

- Wallingford Neighborhood, Seattle, 291–293
- Design review
 - Architecture+Design Scotland, 309–310
- Greenway planning
 - Chouteau Greenway, St. Louis, Missouri, 231–238
- Site selection and planning
 - Northwestern Memorial Hospital, Chicago, 319–328
 - Evansville State Hospital, Illinois, 68–73
 - Open space and natural areas, San Francisco, 73–75
 - Potomac River boathouse, 87–96
- Chalkley, Tom, 24
- Character, *see also* Site inventory
 - neighborhoods, 149–152, 212
 - studies, 290–291
- Charts, *see* Maps
- Chicago, 319–328
- Chloropleth map, *see* Maps
- Chouteau Greenway, St. Louis, Missouri, 223–229
- Circulation systems
 - bicycles, 195, 275–276
 - design, 201, 217, 222–223, 228, 239–241, 269–278
 - inventory and analysis, 16, 148–149, 162, 322–323
 - mistakes, 299–305
 - patterns, 215
 - pedestrians, 43, 69, 148–149, 162, 270–275, 286–290
 - streetscapes, 188
 - vehicles, 276–278
- CLARB (Council of Landscape Architectural Registration Boards), x–xi
 - survey of work tasks, xi
- Classification, *see also* Typology
 - buildings, 151
 - landform, 108–109
 - wetlands, 128–130
- Client, 14–15, 23–24, 26, 41, 46, 77
 - Objectives, 77
- Climate, 117–123
 - attributes, 16
 - design influences, 230
 - microclimate, 117–122, 180
 - plant hardiness zones, 119
 - shade diagrams, 122
 - solar access, 119–122
 - storms, *see* Natural hazards
 - wind, 117, 120–122
- Coastal zone, 142–143
- Codes, *see also* Land use regulation
 - building, 124
 - zoning, 101–102, 144–146
- Cognitive maps, 149
- Colorado
 - Teller County, 64
- Commercial uses, 20, *see also* Land use
- Communication, *see also* Graphic
 - communication
 - theory, 23–26
- Community, *see also* Planning
 - character, 254–255
 - goals, 216
 - participation in design process, 324
 - resources, 6–9
 - sustainability, 5–9, *see also* Sustainability
- Comprehensive planning, 143–144, 248, *see also* Planning
- Comprehensive Planning Examination, 21
- Concept
 - development, 19, 209–249
 - evaluation and refinement, 229–231
 - plan, 176, 217–229
- Conceptual design, 19, 209–249
 - process, 215–217
- Congress for the New Urbanism, 44, 331
- Connectivity
 - landscape corridors, 127–128
 - in pedestrian circulation systems, 274

- Conservation, 11, 127–138, 147–148, 217
 - areas, 20
 - easements, 147–148
 - subdivisions, 220
- Constraints, *see* Site constraints
- Construction
 - contract administration, 300
 - documentation, 19–20, 298–299
 - drawings, 298–299
 - mitigation, 131
 - specifications, 299
- Context, in design, 12, 48, 50–60, 99, 139–164, 184–196, 210–213
- Contrast
 - in built environment, 261
 - in graphic communication, 32–33
- Coordinate systems, *see* Georeferencing
- CoreNet Global, 334–335
- Corridors
 - landscape, 127–128
 - highway, 156–157
- Costs, 49, 50–51
 - evaluation, acquisition and holding costs, 61
 - design and engineering costs, 12, 62
 - permitting and approval costs, 62–63
 - construction and mitigation costs, 63–64
 - operation and maintenance costs, 13, 64–65
- Creative class, 247
- Creativity, 213–215
- Critical areas, 178–180
 - ordinances, 180–184
- Cultural attributes
 - designing with, 6–8, 15–16, 210
 - inventory of, 19–20
- D**
- Data
 - accuracy, 172–172
 - base maps, 34
 - sources, 34, 77–78
 - suitability analysis, 172–184
- Data, geospatial
 - California Land Use Planning Information Network, 331
 - Census Bureau, U.S., 329
 - Centre for Topographic Information, Canada, 330
 - Department of the Environment and Waters, Australia, 330–331
 - Fish and Wildlife Service, U.S., 330
 - GIS Data Depot, 335
 - MassGIS, 38, 331
 - National Air Photo Library, Canada, 331
 - National Geospatial Data Framework, U.K., 331
 - National Geospatial Program Office, U.S., 331
 - Terraserver, 335
- deGroot, R.S.
 - Functions of Nature*, 4
- Design
 - character, 227, 288
 - concepts, 182, 209–249
 - determinants, 46–47, 205–207
 - development, 19, 209–249
 - guidelines, 87–89, 206, 284–285, 288, 291–293
 - knowledge, skills, and values, 20–21
 - mistakes, 299–305
 - with nature, 63, 204
 - precedents, 84–86, *see also* Post-occupancy evaluation
 - principles, 209–215, 252–288
 - process, 13–20, 41
 - and programming, 74–77
 - review, 88, 229–231, 310–311
 - sustainable, 3–13, *see also* Sustainability teams, 102
 - theory, 101–102, 213, 252–288
 - vocabulary, 84–86, 214–215
- Developers, real estate, 12
- Development, *see also* Economic development
 - codes, 288, 310–311

- constraints, xi, 17–18, 169–188, 214–215
- controls, *See* Land use regulation
- costs, 61–65
- feasibility, 49, 60–66
- impacts, 229–231, 297–305
- incentives, 65–66
- opportunities, 17–18, 172–180, 183–190
- rights, *see* Property rights
- regulation, *see* Land use regulation
- suitability, 10–11, 15–21, 172–196, 216–217
- sustainability, 5, 10–11
- DevelopmentAlliance, 335
- Diagramming, 25, 224–227
- Diagrams
 - building footprints, 92
 - climate, 122
 - concept plan refinement, 228
 - concept plan relationships, 226
 - conceptual design considerations, 210
 - development suitability, 173
 - functional relationship, 87
 - land use suitability analysis, 17
 - professions and site analysis, 18
 - program goals and elements, 234
 - shade patterns, 121
 - site–planning process, 14
 - site selection process, 49
 - site suitability, schematic, 31
 - spatial hierarchy, 8
 - suitability for sustainable development, 10
 - sun angles, 120
 - sustainable planning, design, and management, 11
 - wellhead protection, 112, 175
- Digital
 - digital terrain model (DTM), 38
 - orthophotos, 38, *see also* Remote sensing
- Douglas, William, O., 139
- Drainage, *see* Hydrology and Stormwater management
- Drawings, *see* Diagrams *and* Graphic communication
 - freehand, 24, 34
- Due diligence, 61
- E**
 - Easements, 34, 147–148, 206
 - types and purposes, 148
- Ecology
 - Fundamentals of Ecology*, 131
- Ecological, *see also* Species communities, 127–138
 - footprint, 43
 - habitat, 45, 124, 136, 218
 - integrity, 138
 - niche, 127
- Economic
 - development incentives, 12–13, 65–66
 - growth, 11
- EDAW, Inc., 89–98, 285
- Edward D. Stone, Jr. and Associates (EDSA), 161–162, 179, 187, 230, 267–268, 272–273, 287
- Elevation, *see* Topography
- Ellerbe Becket, 319–328
- Emphasis, *see* Design principles
- Enclosure, of outdoor space, 267, 269
- Endangered Species Act, U.S., 127, 132
- Energy, 9–10, 43, 118–124
- Engineering, 13, 47, 62, 80, 111
 - brute force, 171, 302
- Engineers, Institute of Transportation (ITE), 334
- Environment, and sustainable design, 12–13
- Environmental conditions, *see* Site constraints *and* Site opportunities
- Environmental impact, 10, 124–125
 - assessment, 314
 - Low-Impact Development Center, 332

- Environmental Planning & Design (EPD), 221, 238–249
- Environmental Site Assessment (ESA), 140–141
- Environmental Systems Research Institute (ESRI), 335
- Erosion and sediment control, 303–305, *see also* Storm water management
- ESRI, Environmental Systems Research Institute, 335
- Ethics, 20, 24
- Everglades, Florida, 127
- Exactions, 63–64, *see also* Land use regulation
- Examinations, professional
- Architect Registration Exam (ARE), 20
 - Comprehensive Planning Examination, 21
 - Landscape Architect Registration Exam (LARE), 21
- Existing conditions, *see* Site inventory
- base maps, 34
- Exotic species, 127, 128–131
- Experiences, and economic growth, 11
- Extended Metabolism Model, 251–252
- Externalities, 62
- F**
- Feasibility study, 49, 60–66
- Fibonacci, Leonardo, 259
- Fibonacci series, 259
- Figure-ground, diagram, 152
- Films, 35–36, *see also* Remote sensing
- Fire, 126, *see also* Hazards
- Flooding, 57, 64, 111–112, *see also* Hazards
- Floor area ratio (FAR), 278
- Florida
- Amelia Island, 133
 - Boca Raton, 263, 277
 - coastal dunes, 219
 - Everglades, 131
 - Fort Lauderdale, 267–268
 - Indian Trace, 238–249
 - Kissimmee River, 179, 230
 - southwest, 129
- Florida, Richard, 253–254
- The Rise of the Creative Class*, 253
- Focus groups, *see* Programming
- Footprint, *see* Building
- Form-based zoning codes, 144, 303, *see also* Land use regulation
- Fragmentation, habitat, 128, 136
- Franklin, Carol, 11
- France
- Nice, 135
 - Paris, 221
 - Toulouse, 221
- Freehand drawings, 34
- Functions of nature, 3–4, 129–134
- Futurist, The*, 24
- G**
- Geology, 106–108, 129
- attributes, 16, 108–110
 - geologic maps, 109–110
 - landslides, *see* Hazards
- Geographic information systems (GIS), *see also* Mapping
- buffering, 174–175
 - cadastre, 338
 - definition of, 340
 - digital terrain models, 38
 - digital orthophotos, 38
 - intersection function, 175
 - mapping, 23, 37–39, 121
 - Massachusetts GIS (MassGIS), 38, 331
 - raster, 37
 - spatial analysis, 37, 54–55, 172–180
 - union function, 176
 - vector, 37
- Georeferencing, 38–39
- coordinate systems
 - Public Land Survey System (PLSS), 39
 - State Plane Coordinate (SPC) system, 39

- Universal Transverse Mercator (UTM), 38–39
 - GIS Data Depot, 335
 - Global Positioning Systems (GPS), 36–37
 - in vegetation mapping, 135
 - Golden ratio, 252
 - GPS, *see* Global Positioning Systems
 - Graphic communication, 23–26, 32–34, 221–229, *see also* Maps and Mapping
 - base maps, 34
 - contrast, 32
 - lettering hierarchy, 33
 - line weight hierarchy, 33
 - nodes, zones, and landmarks, 227–229
 - paths and edges, 228
 - sheet organization, 33
 - theory, 25–26
 - Green infrastructure, 218, 223
 - Greenway planning, 7, 231–238
 - Greyfields, 44–45
 - Groundwater, *see* Hydrology
 - Guidelines, design, 87–89, 206, 284–285, 288, 291–293
- H**
- Habitat,
 - fragmentation, 128, 136
 - protection, 218
 - restoration, 45
 - Halprin, Lawrence
 - Sea Ranch project, 224
 - Hazards
 - chemical, 136–137
 - natural, 5, 123–124, 186, 229
 - fire, 130
 - flooding, 57, 64, 111–112
 - geological, 109–110
 - landslides, 111
 - Health, and the built environment, 12, 152, 159
 - Hierarchy
 - in graphic communication, 32–33
 - in built environment, 8, 253–254
 - Historic resources, inventory, 15–16, 148–150, 231–234
 - HOK Planning Group, 7, 58, 68–73, 77, 86, 103, 106–107, 113, 116, 118, 123, 130, 136–137, 152, 154–156, 160, 165–166, 181–182, 192–193, 225, 231–238, 284–285, 289, 319–328
 - Home Builders, National Association of, 334
 - Hough, Michael, 183, 187
 - Housing, 15, 196–206, 239, 252, 257, 260, 275, 283, 288–289, 291–294
 - Human scale, *see* Design theory
 - Hydrology, 110–113, *see also* Stormwater management
 - attributes, 16, 124
 - drainage, 110–116
 - groundwater, 110–115
 - Low-Impact Development Center, 331
 - wellhead protection, 112, 175
 - wetlands, 131–133
- I**
- Iconic, architecture, 261–262, 281
 - Illinois, Evansville, 68–73
 - Impact assessment, 63–64, 314
 - Implementation, project, 19–20, 295–328
 - India, 123, 192
 - Indian Trace, Florida, 238–249
 - Industrial, siting, 64, *see also* Site selection
 - Infill, 43–45, 51–52, 62, 290–291
 - Infrastructure, 65–66, 148–149
 - green, 218, 223
 - utilities, 149
 - transportation, 148–149
 - Institute of Transportation Engineers (ITE), 334
 - International Development Research Council (IDRC), 46–47
 - Iowa, Des Moines, 66
 - Isopleth map, *see* Maps

- Israel, Haifa, 165–168
- Italy
 Capri, 251
 Florence, 251
 Pisa, 252
 Rome, 253
- K**
- Kissimmee River, Florida, 179, 230
- Knowledge, skills, and values, 20–21, 215
- Kuwait, 118, 136–137
- L**
- Land appraisal, 103, 133, 146–148
- Land cover, National Land Cover Dataset (NLCD), 128, *see also* Vegetation
- Land Design, 56, 153, 185, 189–190
- Land Institute, Urban (ULI), 334
- Landscape architects, 12, 20–21, 78, 84, 129
- Landscape architecture, 13
- Land tenure, 140–141
- Land trust, 206
- Land use
 classification, 16, 28, 30–32
 Cornell University Legal Information Institute, 326
 development incentives, 65–66
 history, 117, 128, 141–142, 231–234
 regulation
 building codes, 124
 critical areas, 178–180
 exactions, 63–64
 growth management, 178–184
 local, xi, 62–64, 88–89, 137–142, 180–186, 229, 265, 307–315
 federal and state, 142–143
 takings, 147
 zoning, 101–102, 144–146
 inventory, 15
 planned unit development (PUD), 144, 343
- Landform, *See* Geology
- Landscape Architect Registration Exam (LARE), 21
- Landscape Architects, American Society of (ASLA), 334
- Landscape
 change, 3–5
 continuum, 46
 corridors, 127–128
 functions, 3–4
 as symbolic medium, 150–153
 ecology, 127–128, 134
 patterns and processes, 11, 101
 restoration, 11
- Lawson, Brian, 208, 247
How Designers Think, 214
- LEED (Leadership in Energy and Environmental Design), 11, 43, 286, 286
- Legal Information Institute, Cornell University, 332
- LESA (Land Evaluation and Site Assessment), 177
- Lewis, Philip, Jr., 184
- Licensing
 architects, 20–21
 landscape architects, 20–21
- LIDAR (Light Detection and Ranging), 36
- Livability, community, 203–204, 266, 269–288
- Liveable Communities, Center for, 332
- Location analysis, 46–47
- Los Alamos National Laboratory
 Sustainable Design Guide, 286
- Low-Impact Development Center, 332
- Lynch, Kevin, 13, 255
Site Planning, 13, 255
The Image of the City, 149
- M**
- Main Street, National Center, 333
- Mapping, fundamentals, 26–32, *see also* Site inventory
- Maps
 accuracy standards, 39–40

- base, 34
 - chart, 29, 32
 - chloropleth, 31–32, 105–107, 117, 128, 338
 - cognitive, 146
 - coordinate systems, 38–39
 - Public Land Survey System (PLLS), 39
 - Universe Transverse Mercator (UTM), 38–39
 - definition of, 26
 - figure-ground, 152–153
 - georeferencing, 38–39
 - isopleth, 30–32
 - land use, 28–31
 - measurement scale, 28–29
 - microclimate, 121
 - National Map Accuracy Standards, U.S., 39–40
 - parcel, 30
 - plat, 30
 - reference, 29–30
 - Sanborn, 31
 - scale, 27–29, 38–40
 - thematic, 29–32
 - zoning, 145
 - Market analysis, 65
 - Marketing, 80
 - Maryland
 - Baltimore, 252
 - Prince George's County, 292, 294
 - Massachusetts
 - MassGIS, 38, 325
 - McHarg, Ian, 166, 216
 - Design with Nature*, 216
 - McKibbin, Bill
 - The End of Nature*, 158
 - Measurement,
 - conversion (English/Metric), 27
 - scales, 28–29
 - Medical center, design, 320–328
 - Medicine, 101–102
 - Mexico
 - Bahia Balandra, 181
 - Ciudad Mitras, 284–285
 - Microclimate, *see* Climate
 - Minnesota
 - Anoka, 66
 - Mississippi River, 220
 - Missouri
 - Fenton, 155–156, 160, 194–195
 - St. Louis, 155, 231–238
 - Mitigation, 132, *see also* Project implementation
 - Mizner Court, Boca Raton, Florida, 263
 - Moore, Henry, 276
 - Multiattribute Utility Analysis (MUA), 82–83
- N**
- Natural hazards, *see* Hazards
 - Nature, 157
 - designing with, 169–206, 216–217
 - functions of, 3–4
 - Nature Conservancy, The, 251
 - NCARB (National Council of Architectural Registration Boards), 20–21
 - Neighborhoods, 239
 - neighborhood development, LEED–ND, 296
 - New Urbanism, Center for the, 85, 332
 - New York
 - Love Canal, 136
 - Seagram's Plaza, 120
 - Nodes, 162
 - Noise, 163–164
 - measurement of, 163
 - workplace standards, 163
 - North Carolina
 - Buncombe and McDowell Counties, 189
 - Onslow County, 185
 - Northwestern Memorial Hospital, 319–328
 - Nuisance, 163–164, 166

O

Odors, 164

Odum, William E.
Fundamentals of Ecology, 131

Office parks, 65–66, *see also* Land use

Oklahoma, highway corridors,
161–162

Open space
conservation, 264–265
design, 13, 213, 217–218, 254–269
developed, 221, 264, 267–269
enclosure, 248–249, 267–269
functions, 87
mapping, 26
networks, 218–223, 231–238, 238–241,
247–249
site selection, 55–56, 73–75

Opportunities, *see* Site opportunities

Order, in the built environment, 254–256

Ordinances, *see* Land use regulation

Oregon
1,000 Friends of Oregon, 331
Portland, 8

Originality, 214

Otak, 43–44

Ottawa, Canada, *A Vision for Ottawa*, 5

Overlay analysis, *see* Geographic
information systems

Owner, *see* Client

P

Palladio, Andrea
The Four Books on Architecture, 259

Parcel
map, 30
size and shape, 103–104

Parking
lots, 274–282, 292–293
retrofitting, 277

PDD (Planned Development District), 144

Pedestrians
circulation patterns, 148–149
circulation system design, 270–275, 293

conflicts with vehicles, 270–273,
276–277, 293
walkable neighborhoods, 43

People, designing for, 210

Permitting and approvals, 53, 62–63, 308–
309, *see also* Land use regulation

Photographs
aerial, 35–36, 54–55, 103, 141, 331, 335,
337
in visual preference surveys, 83–84

Photosimulation, 97

Place, sense of, 139, 152, 191–193, 255–
293, 286–287

Plans
concept, 182, 215–231
construction drawings, 306–307
site, 34, 96, 265, 278, 284, 295–298

Planning, *see also* Site planning
American Planning Association, 334
comprehensive, 143–144
Cyberbia–The Planning Community,
332
design guidelines, 288–290
greenways, 7, 231–238
South Livermore Valley Specific Plan,
190–199
Smart Growth, 9, 43, 143–146,
251–252, 270

Plants
exotic, 124, 127–128
hardiness, 117–119
in the built environment, 267–268, 270,
277, 288, 292–293
trees, 133–135

Plat map, 30, *see also* Maps

Plaza, 215, 253

POE (Post-occupancy evaluation), 84–85

Police powers, 6, 143, *see also* Land use
regulation

Policy, *see* Public policy

Porous paving, 278, *see* Stormwater
management

Portland, Oregon, 8

- Potomac River boathouse, site selection, 89–98
- Prairie Crossing, Illinois, 220
- Precedents, 82–84, 229, 253
precedent studies, 85–86, 90
- Precipitation map, 111
- Preferences, *see also* Programming
site users, 81–84
visual, 253
- Pro forma* financial statements, 60–61
- Project
feasibility, 60–66
implementation, 19–20, 295–328
objectives, 48–50, *see also* Programming
phasing, 84
- Program, 211, 216
- Programming, xi, 14–15, 75–96, *see also*
Design guidelines
and design, 77–79
documentation, 86–89
functional relationships, 87
methods, 79–86
Multiattribute Utility Analysis (MUA), 82–83
visual preference surveys (VPS), 83–84
- Property
rights, 147
surveys, 34
takings, *see* Land use regulation
value, 105, 146–148
- Proportion
and architecture, 255–260
golden ratio, 260
proportioning systems, 256
- Public
hearings, 62, 307
officials, 12, 26
policy, 52, 82, 183, *see also* Land use, regulation
sector projects, 81
- PUD (Planned Unit Development), 144, 343
- Purchase of Development Rights (PDR), 147, 177
- Q**
Quality of life, 12
- R**
Real estate
American Real Estate and Urban Economics Association, 334
appraisal, 103, 133, 146–148
CoreNet Global, 334–335
DevelopmentAlliance, 335
development, 45–47, 50
International Development Research Council, 46–47, 65
market studies, 65
services, 47
Urban Land Institute (ULI), 334
- Recreation, 20, 240–243
- Recycling, sites, 11, 43–45, *see also* Sustainability
- Reference maps, *see* Maps
- Remote sensing, 35–36
aerial photographs, 35–36, 54–55, 135, 141, 325, 335, 337
digital orthophotos, 38
digital sensors, 35–56
films, 35–36
Light Detection and Ranging (LIDAR), 36
satellites, 35–37
- Residential uses, 20, *see also* Housing
- Restoration, environmental, 11, 299–300
- Reston, Virginia, 261
- Revitalization, *see* Sustainability
- RFP (Request for Proposals), 14
- RFQ (Request for Qualifications), 14
- Risks, financial, 60–66
- Robertson, Howard
The Principles of Architectural Composition, 254
- Runoff, *see* Stormwater management

S

- St. Louis, Missouri, 231–238
- Sanborn maps, 31, 49–50
- San Francisco, California
 - Golden Gate Bridge, 254
 - open space selection process, 55–56, 73–75
 - street gradients, 178
- Satellites, *see* Remote sensing
- Sawhill, John, 251
- Scale
 - in the built environment, 252–259
 - in mapping, 27–29, 39–40
- Scenic quality, *see* Visual quality easements, 148
- Schematic, design, *see* Site planning
- Schoen, Donald, 213–214
 - Educating the Reflective Practitioner*, 213
- School siting, Alaska, 52, 55
- Scope of work, 78, 99, 102
- Scotland, Architecture+Design, 295, 317–318
- Seattle, Washington
 - critical areas policies, 177, 180
 - design guidelines, 291–293
 - King County school district, 63
 - University of Washington,
- Sense of place, 139, 152, 191–193, 255–293, 296–297
 - cognitive maps, 149
- Sewer systems, *see* Utilities
- Shade, 119–124, 186
- Shaft of space, 213
- Shopping center, redevelopment, 44
- Signs, 270
- Simonds, John Ormsbee
 - Landscape Architecture: The Shaping of Man's Natural Environment*, 249
- Simulation, three-dimensional, 181–183, 236, 289
- Site analysis
 - definition of, 163, 165
 - overview, 15–19, 169–206
- Site constraints, xi, 17–18, 169–189, 213–214
- Site design, *see* Site planning
- Site evaluation, report format, 75
- Site inventory, 15, 68–81, 93–94, 170
 - biological attributes, 15–17, 123–134
 - cultural attributes, 139–168
 - physical attributes, 101–124
- Site opportunities, 17–18, 172–180, 189–196
- Site plan review, 311–316, 328, *see also* Land use regulation
- Site planning, *see also* Design and Planning process, 13–20, 41
 - schematic, 96
 - skills, 20–21
- Site selection, 15, 43–75
 - algorithm, 59
 - case studies, 68–75, 87–96, 317–328
 - criteria, 49–53, 55–60
 - evaluation report format, 75
 - goals, 45
 - matrix, 58–60, 73, 96, 321–322
 - medical center, 319–320
 - process diagram, 49
 - rating scales, 56–57
 - schools, 52, 55
 - stand alone sites, 46
 - site within a site, 46–47
 - weighting criteria, 58–59
- Site suitability, 10–11, 15–21, 47–66, 104–124, 172–196, 216–217
 - analysis, 49, 55–60, 73–75, 89–98
 - benefits, 47–48, 50–53
 - critical areas, policies, 177, 180
- Slope, *see* Topography
- Smart growth, 9, 43, 143–145, 251, 252, 270, 296, *see also* Planning
 - 1,000 Friends of Oregon, 331
 - Center for Livable Communities, 332
 - Congress for the New Urbanism, 332
 - Smart Communities Network, 333
 - Smart Growth America, 333

- Smart Growth Network, 333
 - U.S. Green Building Council, 333
 - Soils, 113–117, 124
 - and agriculture, 35
 - attributes, 16, 113
 - mapping, 117
 - Solar radiation, 117–122, 186
 - easements, 148
 - Sophocles, 169
 - South Livermore Valley, California, 196–206
 - Space, *see* Open space
 - Spatial analysis, *see* Geographic Information Systems
 - Specifications, construction, 307
 - Sprawl, 6, 140, 209
 - Stakeholders, 19, 48, 81–84
 - Stella Maris Monastery, Haifa, Israel, 160–162
 - Stormwater management, 132, 221–222, 234, 277–278, 281–282, 300–305
 - coastal pollution, 142–143
 - drainage, 110–116
 - engineering, brute force, 302
 - erosion control, 303–305
 - sediment control, 305
 - wellhead protection, 112, 175
 - Streets, drainage, 229
 - Streetscapes, design, 182, 209, 234, 296–302
 - Subdivision ordinances, 307–308
 - Sprawl, suburban, 6, 136, 209
 - Suitability, of sites, 10–11, 15–21, 172–196, 216–217
 - Sun
 - angle, 344
 - solar access, 119–122, 148, 186
 - SunAngle, 335
 - Surveys
 - property boundary, 34
 - topographic, 102
 - Sustainability, 5, 10–11
 - community, 5–6, 8–9, 209–210, 227, 253–255, 261–288
 - development impacts, 10
 - infill and redevelopment, 43–45
 - Sustainable Design Guide, Los Alamos National Laboratory, 286
 - and site planning, 9–13, 103, 134, 252–293, 296–320
 - Switzerland
 - Appenzell, 163
 - Basel, 147
 - Geneva, 139, 278
 - Lausanne, 280
 - Zurich, 263, 269, 276
 - Symmetry, 259–260
 - Systems theorists, 24
- T**
- Takings, *see* Land use regulation
 - Tax Increment Financing (TIF), 66, *see also* Economic development
 - Terraserver, 335
 - Thematic maps, *see* Maps, thematic
 - Themes, in design, 261–264
 - Theory, design, 101–102, 206–215, 252–293
 - Thorpe, R. W. & Associates, 81, 114–115, 130, 145, 150
 - Topography,
 - aspect, 107–108, 124
 - attributes, 16
 - elevation, 105, 124
 - slope, 106–107, 124, 176–177, 180, 184–185
 - survey, 102, 104
 - Tourism, 153
 - Traditional Neighborhood Design (TND), 85, 181
 - Transfer of Development Rights (TDR), 148, 177
 - Transportation
 - access, 65
 - bicycle circulation, 201, 275–276

Transportation (*continued*)

- Engineers, Institute of (ITE), 334
- Highway corridors, 161–162
- context-sensitive planning, 221
- pedestrian circulation, 69, 173
- streets, 287–289, 291–292

Trees, 133–135

- enclosure of space, 133, 221, 287
- in parking lots, 277
- real estate value, 132

Triad Associates, 36, 61, 63

Typology

- buildings, 149–152
- cognitive maps, 149
- neighborhoods, 149–150
- site selection, goals, 45
- site selection, criteria, 50

UUnified Development Codes, 310–311,
see also Land use regulation

United Kingdom

- National Geospatial Data Framework,
331

United Nations Environment Programme,
5

United States

- Bureau of Land Management, 163
- Census Bureau, 329
- Centers for Disease Control and
Prevention, 164
- Coastal Nonpoint Pollution Control,
142–143
- Coastal Zone Management (CZM)
Program, 142
- Council on Environmental
Quality, 329
- Department of Agriculture, 35, 117,
119, 177
- Department of Defense, 36–37
- Endangered Species Act, 129, 136
- Environmental Protection Agency, 9,
140, 142–143, 297–298, 329–330

Federal Highway Administration, 221

Fish and Wildlife Service, 132, 133, 136,
330

wetlands classification, 132–133

Geological Survey, 31, 104, 109–111,
124

National Geologic Map Database, 110

Green Building Council, 11, 43, 287,
296, 334

National Climatic Data Center, 330

National Environmental Policy Act, 142

National Geospatial Program Office,
330

National Historic Preservation Act, 153

National Land Cover Dataset, 124

National Map Accuracy Standards, 39–
40National Oceanic and Atmospheric
Agency, 118

National Park Service, 3, 10, 286–287

National Science Foundation, 5

National Weather Service, 330

Natural Resources Conservation
Service (NRCS), 173Occupational Safety and Health
Administration, 164

Supreme Court, 139, 147

Unity, in design, 255–260

in nature, 255–257

Urban design, 12, 82, *see also* Design

Urban Land Institute (ULI), 334

User needs, xi, 81–84, 90

Utilities

- attributes, 16
- inventory, 70, 149
- design, 227–228, 238–239
- easements, 148
- wastewater, 112, 117, 220

VValues, 20, *see also* Ethics

Vegetation

- attributes, 16

- brushfire hazard, 128
- in design, 261
- exotic species, 127, 128–131
- inventory, 127–138
- trees, 133–135, 221, 277–279, 287
- wetlands, 131–133
- Vehicles
 - and bicyclists, 275–276
 - and pedestrians, 270, 274–275
 - circulation systems, 276–278, 286–289, 321–322
 - parking lots, 276–278
- Venturi, Robert, 85, 224
- Views, *see* Visual quality
- Virginia
 - Potomac River boathouse, 89–98
 - Reston, 262
- Visibility, 155–158, 191, 213
 - and design, 213, 225
- Visual quality, 146–147, 158–160, 228
 - and design, 88–89, 213, 252–264
 - impact studies, 97
 - visual preference surveys (VPS), 83–85
 - visual resource assessment, 155–160
- Visualization, of spatial information, 23–40
- Vitruvius, 259
- W**
- Wallace, Roberts & Todd (WRT), 54, 196–206
- Walking, *see also* Circulation systems and Pedestrians
 - National Center for Bicycling and Walking, 332
- Walkways, *see* Circulation systems and Pedestrians
- Washington, D.C.
 - L'Enfant plan, 159, 207
 - Potomac River boathouse, site selection, 89–98
- Washington
 - Growth Management Act, 180
 - King County school district, 63
 - Puget Sound Lidar Consortium, 36
 - Seattle
 - critical areas policies, 177, 180
 - design guidelines, 291–293
 - University of Washington, 159
 - Transportation, Department of, 60
 - Washington County, 30
 - zoning map, 144
- Wastewater, 112, 117, 220
- Water, *see* Hydrology and Stormwater management
 - in design, 105, 191, 220, 238–249
 - wellhead protection, 112, 175
- Watershed Protection, Center for, 332
- Weighting
 - site selection, 58–59
 - suitability analysis, 177
- Western Australian Planning Commission, 209–210, 252
- Wetlands, 131–133, *see also* Hydrology
- White, Edward T., 25
- Whyte, William H., 120
 - The Social Life of Small Urban Spaces*, 271
- Wildlife, 124–127, 136–138, *see also* Habitat
- Wind, 117, 120–122
- Wisconsin
 - Land Recycling Law, 52
 - Lewis, Philip, Jr., 184
 - Madison, 143–144
 - Middleton Hills, 275
 - Wright, Frank Lloyd, 224, 280
- Wisdom, 24
- Wright, Frank Lloyd, 224, 280
- Z**
- Zoning, *see* Land use regulation
 - amendments, 327–328
 - codes, 6, 44, 144–146, 309–310
 - map, 145
- Zurich, Switzerland, 263, 269, 276