| CONTENTS |
|------------------|------------------|
| **About This Book** | viii |
| **Acknowledgements** | ix |
| **Introduction** | 1 |
| **Draughting Guidelines** | 2 |
| **Units and symbols** | 4 |
| **Construction drawings** | 7 |
| **Constructions drawings: CAD** | 10 |
| **Construction drawings: symbols** | 12 |
| **Measurement Basis** | 15 |
| **Man: the universal standard** | 16 |
| **Man: dimensions and space requirements** | 18 |
| **Man and his housing** | 19 |
| **Building biology** | 21 |
| **The eye: perception** | 24 |
| **Man and colour** | 26 |
| **Dimensional relationships** | 27 |
| **Basic measurements** | 31 |
| **Modular system** | 34 |
| **Coordinate system and dimensioning** | 35 |
| **Design** | 36 |
| **Building details: functional use of materials** | 37 |
| **Form: the result of construction** | 38 |
| **The design of houses: expression of the period** | 39 |
| **Design method: working process** | 40 |
| **Building design: preparatory work** | 41 |
| **Construction Management** | 43 |
| **Construction management** | 51 |
| **Building Components** | 52 |
| **The building site: foundations, excavation, trenches** | 53 |
| **Excavations: site and building measurements** | 55 |
| **Earthworks and foundations structures** | 56 |
| **Building and site drainage** | 57 |
| **Damp-proofing and tanking** | 58 |
| **Masonry: natural stone** | 62 |
| **Masonry: bricks and blocks** | 63 |
| **External walls: low-energy building construction** | 66 |
| **Masonry bonds** | 67 |
| **Fireplaces** | 68 |
| **Chimneys and flues** | 69 |
| **Ventilation ducting** | 70 |
| **Services: connections** | 71 |
| **Roof structures** | 72 |
| **Roof forms and coverings** | 75 |
| **Dormers** | 77 |
| **Loft space** | 78 |
| **Roof slopes and flat roofs** | 79 |
| **Flat roofs: warm roof construction** | 80 |
| **Flat roofs: cold roof construction** | 81 |
| **Roof gardens** | 82 |
| **Roof gardens: roof construction** | 84 |
| **Roof cultivation** | 85 |
| **Tensile and inflatable structures** | 86 |
| **Cable net structures** | 87 |
| **Suspended and tensioned structures** | 88 |
| **Space frames: principles** | 89 |
| **Space frames: applications** | 90 |
| **Multistorey structures** | 92 |
| **Suspended floors** | 93 |
| **Flooring** | 94 |
| **Heating and Ventilation** | 95 |
| **Heating** | 100 |
| **Heating: oil storage tanks** | 101 |
| **Solar architecture** | 104 |
| **Solar energy** | 105 |
| **Ventilation and air conditioning** | 109 |
| **Cold storage rooms** | 113 |
| **Thermal and Sound Insulation** | 111 |
| **Thermal insulation: terminology and mechanisms** | 112 |
| **Thermal insulation: water vapour diffusion** | 113 |
| **Thermal insulation: types of construction** | 114 |
| **Sound insulation** | 117 |
| **Vibration damping** | 121 |
| **Room acoustics** | 122 |
| **Fire Protection and Means of Escape** | 125 |
| **Fire detection** | 126 |
| **Fire spread** | 127 |
| **Smoke and heat extraction systems** | 128 |
| **Extinguisher systems** | 130 |
| **Fire protection: closures and glazing** | 131 |
| **Fire protection: glazing** | 132 |
| **Means of escape from fire** | 133 |
| **Access for firefighters** | 137 |
| **Lighting Protection and Aerials** | 138 |
| **Protection from lightning** | 139 |
| **Aerials** | 140 |
| **Artificial Lighting and Daylight** | 141 |
| **Lighting: lamps and fittings** | 143 |
| **Lighting: provision** | 144 |
| **Lighting: arrangement** | 147 |
| **Lighting: requirements** | 151 |
| **Daylight** | 164 |
| **Daylight: insolation** | 168 |
| **Glass** | 174 |
| **Plastics** | 175 |
| **Windows and Doors** | 176 |
| **Skylights and dome rooflights** | 177 |
| **Windows: sizes** | 178 |
| **Windows: arrangement** | 179 |
| **Windows: shading** | 180 |
| **Windows: types and dimensions** | 181 |
| **Loft windows** | 183 |
| **Windows: construction** | 184 |
| **Windows: cleaning** | 185 |
| **Doors: internal** | 186 |
| **Doors: sizes and frames** | 187 |
| **Revolving and sliding doors** | 188 |
| **Garage/warehouse doors** | 189 |
| **Locking systems** | 190 |
| **Security of buildings and grounds** | 191 |
| **Stairs, Escalators and Lifts** | 192 |
| **Stairs** | 193 |
| **Ramps and spiral staircases** | 194 |
| **Escalators** | 195 |
| **Travelators** | 196 |
| **Lifts** | 197 |
| **Small goods lifts** | 198 |
### Contents

#### Hydraulic lifts
- Access corridors/decks 200
- Stepped housing 201
- Building for disabled people 202
- Barrier-free living 203
- Old people's accommodation 204
- Launderies 205

#### Refurbishment, Maintenance and Change of Use
- Renovation of old buildings 206
- Maintenance and restoration 207
- Change of use 208

#### Roads and streets
- Road dimensions 210
- Road design 211
- Intersections 212
- Roadside paths 213
- Paths and paving 214
- Bicycle parking 215
- Bicycle parking and cycle paths 216
- Motorways 217
- Tramways/urban light railways 218
- Traffic layout 219
- Traffic noise 220
- Securing embankments 221

#### Gardens
- Garden enclosures 222
- Pergolas, paths, steps, retaining walls 223
- Earthworks 224
- Gardens: planting methods 225
- Tendril and climbing plants 226
- Banked and raised beds 227
- Greenhouses 228
- Gardens: trees and hedges 229
- Garden ponds 230
- Gardens: use of rainwater 231
- Garden equipment 232
- Garden swimming pools 233
- Private swimming pools 234

#### Houses and Residential Buildings
- Porches, entrance halls and corridors 235
- Landings and hallways 236
- Storage space 237
- Utility rooms 238
- Pantries, larders and storage 239
- Kitchens 240
- Dining rooms 241
- Bedrooms 242
- Bathrooms 243
- Carports 244
- Holiday homes 245
- Sheds/summer houses 246
- Timber houses 247
- House orientation 248
- Housing types 249
- Terraced houses 250
- Semi-detached houses 251
- Courtyard houses 252
- Detached houses 253
- Houses with conservatories 254
- Three-level houses 255
- Square, cubic and tent-shape forms 256
- Ecological building 257
- House types: examples 258
- Houses on slopes 259
- Large houses 260
- International examples 261
- Multistorey housing 262
- Balconies 263

#### Educational and Research Facilities
- Schools 264
- Further education colleges 265
- Colleges and universities 266
- Drawing studios 267
- Laboratories 268
- Child daycare centres 269
- Playgrounds 270
- Libraries 271
- Museums and art galleries 272
- Museums: examples 273

#### Office Buildings
- Principles 274
- Principles of typology 275
- Calculations: construction 276
- Calculations: building technology 277
- Calculations: division of space 278
- Calculations: floor area requirements 279
- Calculations: space for furniture 280
- Calculations: archive space 281
- Calculations: workstations with computers 282
- Office buildings: examples 283
- Banks and building societies 284

#### Arcades
- Glazed arcades: typology 285
- Glazed arcades: historical examples 286
- Glazed arcades: applied examples 287
- Transparent roofs and canopies 288

#### Retail outlets
- Shops 289
- Food courts 290
- Department stores and supermarkets 291
- Supermarkets/hypermarkets 292

#### Workshops and Industrial Buildings
- Workshops: woodworking 293
- Workshops: metalworking 294
- Workshops: showrooms and vehicle repairs 295
- Vehicle repair shops 296
- Vehicle/company workshops 297
- Workshops: bakery etc. 298
- Wholesale butchers 299
- Meat processing centre 300
- Industrial buildings: planning 301
- Warehouse design 302
- High-bay warehouses 303
- Warehousing technology: planning/logistics 304
- Warehousing technology: safety regulations 305
- Warehousing technology: rack systems 306
- Handling 307
- Industrial buildings: sheds 308
- Multistorey industrial buildings 309
- Toilet facilities 310
- Washing facilities 311
- Sanitary installations 312
- Changing rooms, lockers 313
- Power stations 314
- Hydro-electric power stations 315
| Agricultural Buildings | 405 | Indoor pitches | 499 |
| Poultry farms | 408 | Athletics facilities | 500 |
| Pig sheds: fattening | 409 | Conditioning and fitness rooms | 504 |
| Pig sheds: breeding | 411 | Tennis facilities | 506 |
| Stables/horses | 412 | Miniature golf | 508 |
| Cattle | 414 | Golf courses | 510 |
| Cattle: store bulls | 415 | Sailing: yachts and marinas | 512 |
| Buildings for farm vehicles | 416 | Sailing: harbours/marinas | 514 |
| Farm facilities | 417 | Rewing | 515 |
| Ventilation systems | 421 | Water sports | 516 |
| Public Transport | 422 | Riding facilities | 517 |
| Railways: track installations | 423 | Ski jumps | 519 |
| Railways: European structure gauges and clearances | 424 | Ice rinks | 520 |
| Railways: UK structure gauges and clearances | 425 | Roller-skate/skateboarding | 522 |
| Railway freight yards | 427 | Cyclecross/BMX | 523 |
| Railway stations | 429 | Shooting ranges | 524 |
| Bus stations | 430 | Indoor sports | 526 |
| Designing for Vehicles | 432 | Skittle and bowling alleys | 528 |
| Vehicle dimensions | 434 | Indoor swimming pools | 529 |
| Loading bays | 436 | Open air swimming pools | 534 |
| Turning and parking | 439 | Indoor/open air swimming pools | 535 |
| Garages and car-parking | 440 | Sauna | 537 |
| Car-parks | 443 | Amusement arcades | 540 |
| Filling stations | 444 | Airports | 541 |
| Service stations | 445 | Group practices and healthcare centres | 543 |
| Airports | 446 | Hospitals: general | 544 |
| Airports: planning | 448 | Hospitals: construction planning | 545 |
| Airports: terminals | 450 | Hospitals: planning conception | 546 |
| Airports: runways and aprons | 451 | Hospitals: forms of building | 547 |
| Airports: examples | 452 | Hospitals: dimensional co-ordination | 548 |
| Fire stations | 453 | Hospitals: corridors, doors, stairs, lifts | 549 |
| Fire stations | 454 | Hospitals: surgical department | 551 |
| Restaurants | 455 | Hospitals: main surgical rooms | 552 |
| Restaurants: space requirements | 456 | Hospitals: post-operative facilities | 553 |
| Restaurants: arrangements | 457 | Surgery safety requirements | 554 |
| Restaurant cars | 458 | Hospitals: demarcation | 555 |
| Restaurant types | 459 | Hospitals: intensive care area | 556 |
| Restaurant kitchens | 460 | Hospitals: care areas | 557 |
| Large kitchens | 461 | Hospitals: treatment areas | 558 |
| Hotels/Motels | 462 | Hospitals: laboratories; functional diagnosis | 559 |
| Hotel layout and area requirements | 464 | Hospitals: supplementary disciplines | 560 |
| Hotel kitchens | 467 | Day clinics; outpatient surgery | 561 |
| Hotels: examples | 468 | Hospitals: supplies areas | 562 |
| Motels | 469 | Hospitals: general areas | 563 |
| Youth hostels | 470 | Hospitals: teaching and research | 564 |
| Zoos and Aquariums | 471 | A&E and outpatients department | 565 |
| Zoos and aquariums | 473 | Hospitals: maternity and neonatal care | 566 |
| Theatres/Cinemas | 476 | Hospitals: mortuary, pathology, service yard | 567 |
| Theatres: historical summary | 477 | Special hospitals | 568 |
| Theatres: auditoriums | 480 | Special care area safety | 569 |
| Stages and secondary areas | 481 | Crime prevention | 570 |
| Cinemas | 486 | hotels: historical summary | 571 |
| Drive-in cinemas | 488 | Theatres: auditoriums | 572 |
| Sport and Recreation | 489 | Theatres: auditoriums | 573 |
| Sports: stadiums | 491 | Theatres: auditoriums | 574 |
| Sports halls | 491 | Theatres: auditoriums | 575 |
| Outdoor pitches | 497 | Theatres: auditoriums | 576 |

Healthcare Buildings
- Group practices and healthcare centres
- Hospitals: general
- Hospitals: construction planning
- Hospitals: planning conception
- Hospitals: forms of building
- Hospitals: dimensional co-ordination
- Hospitals: corridors, doors, stairs, lifts
- Hospitals: surgical department
- Hospitals: main surgical rooms
- Hospitals: post-operative facilities
- Surgery safety requirements
- Hospitals: demarcation
- Hospitals: intensive care area
- Hospitals: care areas
- Hospitals: treatment areas
- Hospitals: laboratories; functional diagnosis
- Hospitals: supplementary disciplines
- Day clinics; outpatient surgery
- Hospitals: supplies areas
- Hospitals: general areas
- Hospitals: teaching and research
- A&E and outpatients department
- Hospitals: maternity and neonatal care
- Hospitals: mortuary, pathology, service yard
- Special hospitals
- Special care area safety

Places of Worship
- Churches
- Church organs
- Churches: bells, towers
- Synagogues
- Mosques

Cemeteries and Crematoria
- Cemeteries and crematoria
- Cemeteries and graveyards

Bibliography

Related Standards

Conversion Factors/Tables

Index
null
Floor heating systems, 98, 99
Flooring, 94
agricultural buildings, 407, 410
bathrooms, domestic, 266
designs, 67, 94
hospitals, 552
mortuaries, 586
offices, 343, 344
renovation, 204-5, 266
shops, 371
sound insulation, 119, 123
sports facilities, 493, 526
suspended, 92, 93
WCs, industrial buildings, 399
workshops, 380, 382
Flower shops, 389
Flues, 68, 69
Fluorescent lamps, 148, 150
Fodder, 415
Fontes, 579
Food courts, retail outlets, 370
Footpaths, 216, 217, 229, 298
Foot-washing systems, 400, 530, 539
Foppl framework formula, 89
Forging workshops, 380
Forklift trucks, 434
Form, 37-9
Foster, Norman, 88
Foul water stacks, 58
Foundations structures, 51, 52, 53-4
Foyers, theatres, 485
Freezers, 253
Freight yards, 427
French drain, 60, 61
Front facing, 62
Frosted glass, 150
Fruit refrigeration, 109
Fruit shops, 399
Fume cupboards, 322, 323
Functional diagnosis facilities, 564
Functional use of materials, 36
Function rooms, 456
Furnace rooms, 586
Further education colleges, see Colleges
Game cooling and refrigeration, 110
Game shops, 369
Garages, 187, 301, 436-9, 440
Garden equipment, 239
Gardens, 229-38, 240-1, 417
related publications, 591
see also Roof gardens
Gas-fired heating systems, 95, 97
Gas heaters, 88, 97
‘Gastronorm’ system, 460
General practice premises, 541-2
Germany, 33, 75, 424
Glare, 146, 159, 160
Glass, 130-1, 150, 166-73, 201
Glazed arcades, 363-7
Glaziers’ workshops, 377, 378
Global radiation, 155
Great sheds, 406
Golden section, 20, 30
theatres, 479
Golf courses, 508-11
Goods protection systems, 189
Goods sheds, 427
Grass turf, 226, 230
Grave stones and graveyards, 587
Greek alphabet, 3
Greengrocers’ shops, 369

Greenhouses, 235
Gropius, W., 477
Ground compression piles, 53
Ground probes, 51
Ground water, 21, 51, 60-1
Group practices, 541-2
Guard rails, 193
GUM department store, Moscow, 365
Guttering, 76
Gymnasiums, 504-5, 565
Gymnastics halls and equipment, 492, 493, 494
Half-timbered houses, renovation, 203
Hay storage, 419
Healthcare buildings, 541-78
see also Hospitals
Heat extraction systems, 127
Heating, 96-104, 106
drive-in cinemas, 488
hospitals, 569
related publications and standards, 589, 604
shops, 369
swimming pools, 242
Heckmann Ecoshoe, 66
Hedges, 236
Henhouses, 405, 409, 418
High-bay warehouses, 391, 392-5
High-pressure air conditioning systems, 108
Holiday homes, 269-70
Hospitals, 586
Horizontoscopes, 153
Horse boxes, 415
Horse stables/stalls, 413
Hospitals, 543-79

A&E and outpatients departments, 573
care areas, 557-80
construction planning, 544
corridors, doors, stairs and lifts, 550
day clinics and outpatient surgery, 566
demarcation, 543, 555
dimensional co-ordination, 548-9
forms of building, 546-7
general areas, 571
intensive care area, 556
laboratories and functional
diagnosis, 584
laundry facilities, 305, 306
maternity and neonatal care, 574
mortuary, pathology and service
yard, 575
planning conception, 545
post-operative facilities, 553
related publications, 594
special, 578-7
special care area safety, 578
supplementary disciplines, 565
supply areas, 567-70
surgical department, 551, 552, 554
teaching and research, 572
treatment areas, 561-3
Hostels, 470-2
Hotels, 484-72
kitchens, 459, 466, 467
laundry facilities, 305, 306
related publications, 594
INDEX

Hotels (cont.) swimming pools, 242, 243

Houses bathrooms, 56, 57, 262-7
bedrooms, 257-61
carports, 268
with conservatories, 291
dining rooms/areas, 255-6
dividing walls, 119
ecological building, 66, 284
as expression of period, 39
kitchens, 251-4
landings and hallways, 246
multistorey, 92, 92-7
orientation, 272
pantries and larders, 250
porches, entrance halls and corridors, 245
related publications and standards, 591, 608
on slopes, 272, 274, 283, 288
stone, 37
storage space, 247, 250
symbols, 12
timber, 37, 271, 284
types, 37, 273-80, 285-2, 286-7, 288-91, 297
utility rooms, 248-9
Human scale, 1, 15-19
Humidifying devices, 106
Humidity, 19, 20, 22, 105, 112, 242, 328, 329
Hydraulic lifts, 200
Hydro-electric power stations, 404
Hypermarkets, 372, 374
Ice hockey, 521
Ice rinks, 520-1
Illuminance, see Daylight; Lighting
Impact sound insulation, 119
Imperial system, 31
conversion factors, 811-12
Industrial buildings, 369-404
related publications, 593
Inflatable structures, 86
Information technology, 337, 351
Insolation, 164-5
see also Daylight
Intensive care areas, 556, 558
Interim Certificates, 48
Internal medicine treatment area, 562
Intersections, road, 215, 220
Isometry, 8
Isophonic maps, 225
Japan, 33, 159
Joiners’ workshops, 375-8
Judo, 526
Junctions, road, 215, 220
KEBA joints, 91
Kerbstones, 217
Kindergartens, 325
Kitchens
disabled people, 299, 301
hotels, 461, 467
industrial buildings, 398
hospitals, 568, 569, 570
hotels, 461, 467
houses, 251-4
large-scale catering, 462-3
related standards, 609
restaurants, 457, 459-81
schools, 310
ventilation and air conditioning, 108
youth hostels, 470
Kiwanio method, 33
Krainer walls, 226
Krupp-Montal® space frame, 91
Laboratories
hospital, 584
language, 308
related publications, 592
photographic, 309
schools and colleges, 308, 321-4
Laminated glass, 131, 168
Lamps, 141-2
Landing bridges, 449
Landings, 192, 246
Language laboratories, 308
Larders, 260
Laundry facilities, 467, 468, 469, 568
Laying nests, 405
Le Corbusier, 30, 82
Lecturns, 579, 580
Lecture theatres, 107, 315-19, 543
Lettering, 8
Letting of contracts, 44-5
Libraries, 310, 311, 327-32, 572
related publications, 592
Lifts, 197-201
disabled people, 201, 299, 301
emergency systems, 190
garages, 439
hospitals, 560
old people, 302
related publications and standards, 590, 608
skyscrapers, 354
sound insulation, 121
Lighting
arrangement, 144-6
art galleries, 333
billiard rooms, 527
density, 141
drawing studios, 320
houses, 552, 554, 557
hotels, 256, 257, 255
intensity, 141
lamps and fittings, 141-2
lecture theatres, 319
libraries, 329
metaworking workshops, 380
museums, 333
natural, see Daylight
offices, 346, 348, 351
provision, 143
reflection, 160
related publications and standards, 590, 607
requirements, 147-50
small animal stalls, 406
tennis courts, 506
theatres, 479
warehouses, 394
woodworking workshops, 375
Lightning protection, 138-9, 140
Light shelves, 180
Light transmittance, 167
Lignotrend, 66
Line diagrams, 46, 49
Line types and thicknesses, 9
Linked housing, 275, 276
Living rooms, 12, 118
Loading bays, 434-5
Lockers, 402, 428, 530, 559
Locking systems, 188, 218, 394
Loft space, 78, 180, 193
Log cabins, 270
Loggias, 295
Lorries, see Trucks
Luggage lockers, railway stations, 428
Luggage rooms, youth hostels, 470, 471
Luminous flux, 141, 147
Maintenance and restoration, 207-9
related publications, 590
see also Refurbishment of old buildings
Management, construction, 43-50
Manufacturer’s information and specifications, 45
Marinas, 512-14
Martin, Pugh, 380
Masonry, 62-7
Master key systems, 188
Maternity care, 574
Mathematical symbols, 3
Measurement basis, 15-19, 27-35
building biology, 21-23
excavations, site and building
measurements, 152
human scale, 1, 15-19
related publications and standards, 588, 595
room climate, 19-20
units, 2-3, 6, 9
Meet cooking and refrigeration, 103, 110
Meet processing centres, 388
Medica centres, schools, 310, 311
Mentally ill people, care of, 578
MERO space frame, 28, 90
Metal working workshops, 379-80
Meteorological features, 154
Metro-potential method (MPM), 46, 50
Meter system, 31
Microfiche stations, 329
Military cemeteries/memorials, 587
Miniature golf, 508-9
MIRRORS, 267, 388
Mirror-type glasses, 169
Modular system, 34, 35
application of Le Modulor, 30
Moisture, SI units, 2
Monitoring system, 190
Mortar, 62
Mortuaries, 575, 586
Mosque floors, 94
Mosques, 585
Motels, 469
Motorcycle dimensions, 432
Motorways, 220
Mountain slopes, house orientation, 272
Multistorey structures
arcades, glazed, 363, 364
car parks, 440, 441, 442
hospitals, 91, 248, 266, 282, 292-7
industrial buildings, 398
office buildings, 352, 353-4, 358
stairs, 192
woodworking workshops, 375
Museums, 333-5
related publications, 692
Music, 122, 123, 309
Natural stone, 22, 62, 94, 228, 229
Natural ventilation, 105
Roofs (cont.)
renovation, 204
sheds, industrial, 387
slopes, 33, 79, 83, 84
sports stadiums, 490
storage space, 247
structures, 72-4
tensile, 86
thermal insulation, 114
transparent, 367
windows, 180; see also Rooflighting
woodworking workshops, 375
Room climate, human factors, 19, 20
Roundabouts, 215
Rowing, 515
Royal boxes, 490
Runways, 448, 450
Rütter, E., 91
Sacrity, 580
Saddle rooms, 517
Safes, 359, 361
Safety deposit boxes, 359, 361
Safety glass, 168
Safety regulations, 394, 483, 563
see also Fire safety
Sailing, 512-14
Sanitary installations, 401, 470, 471, 531
see also Bathrooms; Showers; WCs
Sash windows, 105
Saunas, 537-9
Sawtooth roofs, 75, 138
Scales, 6
Scene space frame, 91
Schools, 307-13, 325, 326
Science libraries, 331
Science rooms, 309
Sculptors, rooms for, 320
Seating
churches, 579
cinemas, 487
laboratories, 322
lecture theatres, 318
offices, 348, 349
restaurants, 455-6, 458
sports halls/stadiums, 490, 495
theatres, 475, 479
Sectional drawings, 43
Security systems, 125, 188, 189-90
banks and building societies, 361, 362
libraries, 328
offices, 349
warehouses, 394
see also Locking systems
Selectivity code, 167
Self-service restaurants, 459, 481
Semi-detached houses, 275, 276, 278
Serlio, Sebastiano, 476
Services
connections, 71
noses from, 120
Service stations, 445
Service yards, hospitals, 575
Set squares, 7
Sewage, farms, 420
Seward, Edwin, 364
Shadows and shading, 153, 189, 178, 235
Sheds
agricultural, 406, 407, 409-11, 414-15, 418
garden, 270
goods, 427
industrial, 397
Sheep sheds, 407
Sheet roofs, 76
Sheltered housing, 302
Shelving
hospitals, 571
libraries, 327, 328, 329
metallworking workshops, 379
offices, 360
shops, 369, 371
warehouses, 391, 394, 395
Shielding glass, 169
Ships' cabins, 269
Shooting ranges, 524-5
Shophlifting protection systems, 189
Shopping trolleys, 372, 373
Shops, 368-74
Showers
domestic, 262-7
hospitals, 558, 559
industrial buildings, 400
sports halls, 495
swimming pools, 531, 534
Showrooms, vehicle, 381
Shutters, 178
Silos, 419
Sinks, 253
see also Wash-basins
Site layouts, 6
Site measurements, 52
SI units, 2-3
Skateboarding, 522
Skating rinks, 520-2
Ski jumps, 519-20
Skittle alleys, 528
Skylights, 175
Skyscrapers, 354, 358
Slate roofs, 75
Slaughterhouses, 387
Sliding doors, 184, 186, 373
Slopes, houses on, 272, 274, 283, 288
Small animal stalls, 405-7
Small animal stalls, 199
Smoke extraction systems, 127, 175
Smoke hoods, 68
Snack-bars, 459, 460
Snorkel banks, 362
Soakaway, 60
Solar architecture, 101-3
Solar constant, 154
Solar control double glazing, 167
Solar electricity, 104
Solar energy, 101, 102, 104, 154, 155-6
glass, 167
Solar heat, 104
Solar positions, 151-3, 164-5
Solar radiation, 154, 155-6
Solid fuel heating systems, 95
Solid masonry walling, 63, 65
Sound absorption, 120
Sound insulation, 117-24
bathrooms, 266
glass block walls, 173
hospitals, 550
related publications and standards, 394
room acoustics, 122-4
shooting ranges, 526
traffic noise, 223, 225
ventilation and air conditioning, 107
vibration damping, 121
windows, 118, 182
Sound-control glass, 169
Space frames, 89-91
Special care units, 558, 578
Specialist hospitals, 543, 578-7, 578
Specifications, 45, 48
Speech intelligibility, 122
Spiral ramp car-parks, 441, 442
Sport, related publications and standards, 594, 606-610
Sports halls, 491-6
Sports pitches, 497-9, 526-7
Sports stadiums, 489-90, 600-3
Squash courts, 527
Stables, 412-13, 517-18
Stages, theatre, 461-2
Stairlifts, 201, 299
Stairs, 191-4
hospitals, 550
offices, 353
old people, 302
related publications and standards, 550, 566
renovation, 206
schools, 308
sports stadiums, 489
storage space under, 247
symbols, 13
theatres, 485
youth hostels, 470
Standard Numbering System, 31-2, 33
Standing areas, sports stadiums, 490
Stargolf, 509
Stations, 428-9, 430-1
Steam jet cooling, 106
Stencils, lettering, 8
Stepped housing, 297
Steps, garden, 229
see also Stairs
Steroscopic projection of sun's path, 152
Sterile goods rooms, 552
Sterilisation of hospital instruments, 554, 567
Stone, natural, 23, 37, 62, 94, 228, 229
Storage
bedrooms, 257, 280-1
boats, 514
CAD v. paper-based systems, 10
cold storage rooms, 109-10
cargo yards, 427-2
heating oil, 98, 99, 100
hospitals, 571
space, houses, 247, 250, 299
sports halls, 492, 493
theatres, 483
warehouses, 391-5
Street and roads, 212-25, 272, 450
Strip foundations, 53
Strongrooms, 389, 391-2
Structural glazing, 169
Stylus, 10, 11
Substerilisation rooms, 652
Summer houses, 270
Sunshine, 164-5
see also Daylight
Supermarkets, 371-4
Supervision, construction, 45-60
Supplies areas, hospitals, 567-70
Wholesale butchers, 387
Wind
airports, 446, 450
and chimney efficiency, 69
farm facilities, 417
harbours and marinas, 514
house orientation, 272
office buildings, 352, 354, 355
porches, 245
Windows
arrangement, 177
cleaning, 183
construction, 181–2
daylight, 158
glass, 166–70
hospitals, 550, 553, 557
lighting, 150
loft, 77, 180
multistorey industrial buildings, 398
offices, 347, 348, 353
related publications and standards, 590, 608
renovation, 205
restaurants, 456
riding facilities, 517
shading, 178
sizes, 178, 180
skylights and dome rooflights, 175
sound insulation, 118, 182
types and dimensions, 179
ventilation, 105, 177
woodworking workshops, 375
Woermann roofs, 81
Wood block paving, 94
Woodworking workshops, 375–8
Workshops, 375–88
bakeries, 385
hospitals, 570
metalworking, 379–80
related publications, 593
showrooms and vehicle repairs, 381–4
theatres, 484
wholesale butchers, 387, 388
woodworking, 375–8
Workstations, 336, 337
construction calculations, 346, 347, 349, 350, 351
vehicle repair shops, 383
Wrestling, 526
X-ray department, 562
Yachts, 512–13, 514
Youth hostels, 470–2
Youth hotels, 471, 472
Zinco roof cultivation systems, 83
Zoos, 473–5
related publications, 594