

Index

- accuracy
 - in age at death estimation, 344–346, 349–352
 - anthropologist responsibility for, 297, 459–460
 - in archaeological surveys, 220–222
 - in biological sex assessment, 332–334, 335–336
 - defined, 296
 - of excavation, 236–237
 - in forensic odontology, 496
 - in geophysical surveys, 203–205
 - of global positioning systems, 228
 - of MNI determination, 306
 - in mortuary procedures, 268–269
 - in population specific methods, 309
 - of sampling technology, 426–427
 - of site location information, 189
 - in stature estimation, 386–387
 - of witness statements, 47, 192–194
- active conservation. *See* conservation measures
- age at death estimation
 - accuracy of, 344–345
 - documentation/recording, 345
 - techniques in, 345
- age at death estimation, adults
 - auricular surface change, 377–379
 - cartilage ossification, 381
 - degeneration/remodelling, 369–370
 - dental method, 381–382
 - documentation/recording, 382
 - methods/approaches, 367
 - multifactorial approaches, 381
 - plastron roentgenograms, 381
 - pubic symphysis, 370–376
 - rib end morphology, 376–377
 - skeletal maturation, 367–369
 - suture closure, 381
- age at death estimation, nonadults
 - dental age, 346–349
 - methods/approaches, 345–346
 - metrical analysis, 357–366
 - skeletal age, 349–352
- air imagery
 - comparative analysis, 199–200
 - nontraditional methods, 200
 - recorded information on, 199–200
 - reproduction/storage, 200
 - scale criteria in, 198–199
 - and site location, 196–198
- Albert, A. M., 368
- AMD collection. *See* antemortem data (AMD)
 - collection terms
- anatomical pathology technologist (APT)
 - body reconstruction by, 284
 - and clothing from bodies, 164–165
 - examination room preparations, 128
 - health and safety instruction by, 135–136
 - health and safety role, 83
 - and infection control, 131–132
 - medicolegal duties of, 283
 - in postmortem examinations, 142–143
 - PPE for, 127–128
 - and skeletonised remains, 285–286
 - training and qualifications, 125
 - and viewing, body preparation, 284–285
- ancestry estimation
 - assessment tools/methods, 323
 - defined, 322–323
 - documentation/recording, 323
 - FORDISC in, 93, 323
 - osteometric assessment, 327–328
 - use of, 323
 - visual assessment, 323–327
- Angel, J., 342

- annotation (of evidence). *See* documentation/recording; evidence processing
- anomalies
- and air/satellite imagery, 196–198, 200–201
 - in area/site location, 46, 48–49
 - defined, 46
 - in dentition examinations, 413
 - in DNA profiling, 489
 - documentation/recording, 49–50, 57
 - in excavation phase, 312
 - fieldcraft in, 49
 - and geology/topography, 210, 211
 - geophysical detection of, 203–206
 - in site confirmation, 50, 57, 211, 212
 - and surface stripping, 214–216
 - and trenching, 51, 212–214
 - and vegetation/soil disturbances, 208–209
- antemortem data (AMD) collection
- clothing/personal effects, 507–508
 - community “buy-in,” 501
 - described, 499
 - family/informant participation, 499–501
 - human remains viewing, 508
 - informant engagement, 501–502
 - informant rights/interview termination, 507
 - psychosocial professionals, 498–499
 - staff engagement, 502–503
 - standardized questionnaires, 502
 - translation, 502–503
- antemortem data (AMD) collection, elements
- background data, 503
 - clothing/personal effects, 504
 - death/burial location, 503–504
 - dental history, 506
 - DNA blood samples, 506
 - first vs. second hand information, 503
 - medical history/medication, 505–507
 - obstetric history, 506
 - physical characteristics, 504–505
- anthropologist, mortuary procedures
- in cause/manner of death, 275
 - clothing from bodies, 164–165
 - dentition assessment/examination, 94–95, 410–411
 - evidence management, 84–87
 - final reports, 97
 - in forensic odontology, 491
 - of heat-modified human remains, 95
 - identification, forms of, 167
 - metrical analysis, sex assessment, 335–336
 - and parity status in females, 344
 - photographic requirements, 95–96
 - in postmortem examinations, 88, 92–93, 96
 - sampling policy, 91
 - and taphonomic change, 311–312
- anthropologist, scene of crime examination
- exhibit logging, 154
 - exhibits, bodies, 162–164
 - and forensic photography, 173
- anthropologist, site excavation
- in excavation/evidence recovery, 68, 70
 - in site assessment/confirmation, 44–45, 214–216
- anthropologist, skeletal analysis
- age at death estimation, 345
 - ancestry estimation, 323–328
 - documentation/recording, 459
 - evidence processing, 52–53
 - quality control, 459–460
 - sampling policy, 96
 - skeletal pathology/trauma, 94, 396
- anthropology. *See* forensic science, in mass murder
- APT. *See* anatomical pathology technologist (APT)
- archaeologist
- evidence processing, 52–53
 - in excavation/evidence recovery, 60–61, 64, 68, 218–219
 - exhibit logging, 154
 - in grave exposure process, 67, 68
 - and injury prevention, 117–118
 - in site assessments, 44–45, 53–54
 - in site confirmation, 51–52
 - site recovery management steps, 236
 - standards of work, 185–187, 217, 218
 - surface evidence recovery, 65–67
 - and taphonomic change, 311–312
- archaeology. *See* environmental sampling terms; forensic archaeological excavation terms; forensic science, in mass murder
- area location
- air imagery in, 196–200
 - animal tracks, 209–210
 - archived materials in, 195–196
 - documentary sources in, 194–196
 - dogs in, 207
 - field craft in, 208
 - geographical profiling in, 206
 - geological knowledge in, 210
 - geophysical survey, 203–206
 - maps, 206
 - procedure summary, 211
 - psychological profiling in, 206
 - reconnaissance in, 196

- research, lack of, 183
- satellite imagery, 200–202
- scavenging, 208
- search teams, 206–207
- soil disturbance in, 208–209
- witness statements in, 47, 192–194
- armed forces, and war crimes, 11–12
- atrocities crime investigation
 - courts, role of, 14
 - humanitarian considerations, 12–13, 14, 88–89
 - international support for, 12
 - justice/retribution concepts, 13
 - perpetrators, impunity of, 191
 - political motivations, 12, 14
 - research, lack of, 183
 - sociopolitical-legal contexts of, 12–14
- Association of Forensic Radiographers
- atrocities crime terminology
 - crimes against humanity, 11
 - genocide, 10–11
 - legal definitions, 10–11
 - mass graves, 9–10
 - media usage/abuses, 10
 - politics of, 9
- Aufderheide, A. C., 393, 394–396
- augering
 - definitions, 50
 - site assessment/confirmation, 50–51
- Ayala, G., 476
- biological sex assessment
 - dimorphic characteristics, 332
 - disorders of sexual differentiation, 336–342
 - documentation/recording, 331–332
 - FORDISC in, 336
 - vs. gender assessment, 93, 328–329
 - in identification, 329–331
 - metrical analysis, 335–336
 - reliability of, 331
 - tools and methods, 331
 - trait scoring, 332–334
- Black, S.
 - ageing nonadults, 346, 350
 - metrical analysis, 430, 432
 - skeletal maturation, 368–369
- body weight estimation, 383
- Branch, N., 479, 481
- Brogdon, B. G., 393, 394
- Brooks, S., 370–376
- Brown, A. G., 481
- Buckberry, J. L., 377–379
- Buikstra, J. E.
 - cranial measurements, 430
 - dentition examination, 415–416
 - metrical analysis, 432
- Byers, S. N., 425–426
- Canti, M., 478
- cause of death. *See* death, cause/manner of
- chain of custody. *See also* evidence processing
 - in cause/manner of death, 275, 276–282
 - and data storage/security, 176
 - in defleshing/cleaning, skeletal remains, 298
 - documentation/recording, 266–267
 - in environmental sampling, 482
 - at evidence handover, 56, 158–159
 - and evidence processing, 52–53, 62–63, 66, 85
 - at excavation completion, 71–72
 - and forensic archaeology, 217, 218
 - in forensic entomology, 474
 - and forensic photography, 175
 - health and safety, 116
 - in judicial contexts, 2
 - personnel responsibilities, 56, 60, 75
 - in sampling/sieving, 264
 - and scene of crime examination, 16, 148, 149–150
 - at site assessment completion, 53–54
 - and tissue sampling, 430
- Chalk, F., 7
- Chamberlain, A. T., 377–379
- characteristics assessment. *See* demographic characteristics assessment; individuating characteristics assessment
- Charny, I. W., 7
- Cheetham, P., 203
- clean/dirty area practices. *See* wet/dry area practices
- clinical waste management. *See* health and safety, clinical waste management
- clothing/personal effects
 - in AMD collection, 504, 507–508
 - in postmortem examinations, 89–90, 91
 - washing/cleaning methods, 164–165
- code of conduct. *See* ethical code of conduct
- community impact assessment, 22–23
- conservation measures
 - of heat-modified remains, 262–263
 - of human remains, 256, 261
 - passive techniques, 160–162
 - postmortem pathology, 91
 - of surface evidence, 66

- conservator
 evidence processing, 160
 and human remains, 262–263
 in mortuary operations, 79
 in postmortem examinations, 88, 91
 in site commissioning, 82
 in surface evidence recovery, 66
- Convention on the Prevention and Punishment of
 the Crime of Genocide, 11
- Cox, M. J.
 ethics, 21
 parity status in females, 342
 pubic symphysis, 370–376
 single-use grave excavation, 249
 site definition methods, 47
 taphonomic change, 311–312
- CRANID software
 ancestry estimation, 323
 metrical analysis, 434
 osteometric assessment, 328
- crimes against humanity, 11. *See also* atrocity crime
 terminology
- data entry staff
 final reports, 97
 and mortuary operations, 84–87, 168
 and postmortem examinations, 88, 96
- data storage/security
 access, 178
 data compression/manipulation, 177, 178
 hardware/software requirements, 176–177
 laptop user policy/guide, 181–182
 long-term accessibility/storage, 178–179
 personnel responsibilities, 176
 security measures, 178
 site/mortuary compatibility, 175–176
- data storage/security, postmortem database
 backup, 180
 design of, 179–180
 evidence handover, 180–181
 laptop security, 180
 password protection, 180
 reports, predefined, 180
 testing, 180, 181
 use of, 179
- database usage
 evidence management, 84–85
 in investigation protocols, 39
- death, cause/manner of
 bullet/ballistic investigation, 276
 determination of, 275
 injury description, 275–276
 internal organs, 276–277
 intracranial examination, 276
 pelvic organs, female, 277
 photography, 276
 spinal column, 277
 in suspected rape, 277
- death certificate issuance, 277–278
- debriefing, personnel. *See also* information
 dissemination
 in excavation activities, 72, 187–188
 at mortuary site closure, 98
 at site assessment completion, 54
- decontamination/disinfection
 blood/body fluids, 137
 disinfectants, type and use of, 138–139
 housekeeping standards, 137, 139
 instrument kits, 138
 for PPE, 138
 surface cleaning methods, 137–138
 terminology in, 137
- defleshing/cleaning, skeletal remains
 with beetles, 300
 by boiling, 299–300
 documentation/storage, 298
 by hand, 299
 handling, fragile bones, 300
 handling, stable bones, 300
 necessity of, 298
 personnel requirements, 297–298
 by soaking, 299
 technique selection/preparation, 298
- demographic characteristics assessment. *See also*
 individuating characteristics assessment
 age at death, 93
 ancestry, 93
 biological sex, 93
 parity status (females), 94
- dental identification
 age at death estimation, 346–349
 procedure summary, 491–492
- dentition examination
 anomalies, 413
 and DNA analysis, 417
 documentation/recording, 417–418
 personnel requirements, 410
 and radiography, 410–411
 recording system, 411–413
- dentition examination, pathologies/conditions

- attrition, 415–416
 calculus, 414
 caries, 414
 crowding, 416
 decoration, 415
 dental trauma, 415
 diastema, 416
 discolouration, 415
 documentation/recording, 413–414
 enamel abrasion, 416–417
 enamel defects, 414–415
 malformation, 416
 malocclusion, 416
 modifications, 415
 periodontal disease, 414
 resorption of dental tissue, 414
 restorations, 416–417
 rotation, 416
 transposition, 416
 Di Maio, V. J. M., 393, 394
 disaster victim identification (DVI) software, 491
 disinfection/disinfectants, 137, 138–139
 See also decontamination/disinfection
 disposal scenes, mass murder. *See also* mass murder
 excavation techniques/challenges, 19–21
 health and safety issues, 19–20
 vs. individual graves, 19
 scene of crime/evidence management, 20
 DNA analysis
 AMD elements, 506
 anomalies, 489
 and biological samples, bodies, 165–166
 biological sex assessment, 93
 contamination issues, 487–489
 and dentition examination, 417
 DNA/genetic profiling, 483–484
 documentation/storage, 489
 evidence management, 84
 and families of missing (victims), 2
 and heat modified remains, 424–425
 in investigation protocols, 40
 in MNI determination, 308
 in postmortem examinations, 90, 91
 pre-planning activities, 482–483
 sample preservation (field), 485–486
 sample quality/quantity, 485
 sample verification, 487
 sampling from bodies, 485–486
 and tissue sampling, external laboratories, 427
 uses of, 483
 documentation/recording
 age at death estimation, 345, 382
 ancestry estimation, 323
 anomalies, 49–50, 57
 biological sex assessment, 331–332
 dentition examination, 413–414, 417–418
 in excavation/evidence recovery, 63, 71–72, 258–259, 266–267
 forensic entomology, 474
 heat modified remains, 419–420, 421–422, 425
 MMT policy decisions, 461–462
 MNI determination, 308
 mortuary operations, 84–85, 143, 292–294
 parturition assessment, 344
 postmortem examination, 271
 protocol summary, 57
 radiography, 88
 site assessment, 53–54, 57
 skeletal analysis, 395–396, 459
 stature estimation, 391
 taphonomic change, 312
 tissue sampling, 430
 documentation/storage
 and DNA analysis, 489
 human remains recovery, 262–263
 in postmortem examinations, 91–92, 96
 from sampling/sieving, 264
 skeletal remains, 298, 304
 drivers (vehicles)
 as atrocity witnesses, 192–193
 and field operations, 119–120
 and heavy mobile site plants, 114
 in site preparation, 233–234
 Duric, M., 249
 DVI software, 491
 Ebbesmeyer, C. C., 316
 education/public liaison activities
 ethical code of conduct, 25
 information dissemination, 55–56
 MMT role in, 78
 and psychosocial professionals, 513–514
 Elliot, O., 327–328
 engineering
 grave preparation/protection, 230–233
 mortuary specifications, 134
 site excavation/formation, 67
 entomology. *See* forensic entomology terms
 environmental archaeology. *See* environmental sampling terms

- environmental envelope, acclimatisation, 117
- environmental sampling
 sampling procedures, 477–478
 soil/sediment, 475–476
 uses of, 475, 482
- environmental sampling, analytical methodology
 macroscopic, 478
 microfossils, 478–481
 mineralogy/geochemistry, 481–482
 palynomorphs, 478–481
- EOD. *See* explosive ordnance disposal (EOD)
- ethical code of conduct
 contractual/operational involvement, 24–25
 in education/public liaison activities, 25
 for expert witnesses, 25
 human remains treatment, 25
 overriding code, 24
- ethics
 benchmark directives, 21
 community impact assessment, 22–23
 and cultural differences, 21
 defined, 21
 and evidentiary requirements, 22
 and human remains recovery, 22
- Evans, J., 210
- evidence integrity/continuity, field procedures
 bones (general/unassociated), 156–157
 evidence handover, 158–159
 exhibit logging, 153–155
 exhibit packaging, 155–156
 general clothing bag, 158
 general exhibits, 158
 human remains storage/transportation, 156
 site security, 151–153
- evidence integrity/continuity, mortuary procedures
 biological samples, bodies, 165–166
 clothing from bodies, 164–165
 data entry, 168
 evidence drying, 160–161
 evidence handover, 159–160, 168
 evidence packaging, 161
 evidence storage, 160–162
 exhibits, bodies, 162–164
 exhibits, sites, 167–168
 identification, forms of, 166–167
 publications on, 18–19
- evidence logs
 exhibits, bodies, 162–164
 exhibits, sites, 153
- evidence processing
 in excavation/evidence recovery, 62–63, 69–70, 71
 grave exposure process, 68
 human remains recovery, 40, 85–87
 in mass grave investigation, 39
 mortuary operations, site closure, 97
 in site assessments, 49–50, 52–53
 in site confirmation, 52
- evidentiary goals, investigation protocols, 1–2
- excavation techniques/challenges. *See also* forensic archaeological excavation terms
 forensic landscape issues, 20–21
 health and safety concerns, 19–20
 logistical support/funding, 20
 mass murder sites, 19–21
 UXOs and personnel security, 20
- expert witnesses, ethical code, 25
- explosive ordnance disposal (EOD). *See also* unexploded ordnance (UXO)
 excavation of human remains, 186–187
 exhibit logging, 154
 in field operations, 117
 and site excavation, 68, 70–71
- explosive ordnance disposal (EOD) officers
 in field operations, 117
 in mortuary operations, 123
 training and qualifications, 186–187
- families of missing (victims)
 and AMD collection, 499–501
 and biological samples, bodies, 165–166
 and DNA analysis, 2
 and forensic photography, 173
 postmortem examination observation, 142–143
 remains release to, 99
 viewing clothing, 507–508
 viewing remains, 508
- Fédération Dentaire Internationale* (FDI) system, 411–413
- field investigation team. *See also* evidence integrity/continuity, mortuary procedures; site integrity/continuity, field procedures
 database usage by, 179–180
 in excavation/evidence recovery, 59, 61–62
 grave exposure process, 67
 surface evidence recovery, 65–67
- field management team
 personnel entry control, 150–151
 scene contamination, 151

- Folkens, P. A.
 age at death estimation, 344–345
 metrical analysis, 430
- FORDISC software
 ancestry estimation, 93, 323
 biological sex assessment, 336
 metrical analysis, 434
 osteometric assessment, 328
 stature estimation, 385
- forensic archaeological excavation
 basic principles of, 240, 242–243
 documentation/recording, 266–267
 vs. exhumation, 216
 personnel requirements, 217, 218–219
 preexcavation activities, 234–235
 recovery/recording sequence, 235–236
 site preservation/restoration, 265–266
 site recovery management steps, 236, 251–252
 standards of work, 216–217
 stratigraphic assessment, 236–237
 trenching, requirements for, 237–240
- forensic archaeological excavation, evidence recovery
 evidence from body removal, 245
 plant material, 246
 stratigraphic assessment, 243, 244
- forensic archaeological excavation, grave
 preparation/protection
 electricity/communications, 233
 engineering, 230–233
 hazard barriers, 234
 heavy equipment, 233–234
 site preparation, 229–230
 tentage, 233
- forensic archaeological excavation, human remains
 anatomical associations/positions, 256
 anthropological assessment, 255
 anthropologist's role in, 254–255
 and commingled remains, 257
 documentation/recording, 258–259
 heat-modified human remains, 257–258
 highly fragmented remains, 258
in situ procedures, 255–258
 skeletonised bodies, 257
 soil removal, 256–257
- forensic archaeological excavation, sampling/sieving
 documentation/storage, 264
 dry sieving, 264–265
 sieving strategies, 264
 wet flotation, 265
- forensic archaeological excavation, survey
 electronic equipment usage, 222–228
 goals of, 219–220
 measurements in, 220–222
- forensic archaeological excavation, techniques
 cut-edge clarity, 246
 deep/shafted structures, 253–254
 disturbed graves, 247, 249
 evidence type/recognition, 251
 in multiple-use graves, 249
 personnel requirements, 251–252
 in preexisting features, 252–253
 in single-use graves, 249
 trowelling action, 246–247
- forensic entomology
 and blowflies, 464
 described, 463–464
 species ageing, 465
 species identification, 465
 terminology in, 464–465
- forensic entomology, insect sample collection
 around bodies, 469–470
 from bodies, 468–469
 documentation/recording, 474
 equipment needed, 465–466
 killing/preserving specimens, 471–473
 live larvae maintenance, 473–474
 at postmortem, 470–471
 protocol summary, 474–475
 from wrapped/buried bodies, 469
- forensic geosciences. *See* environmental sampling terms
- forensic landscape, and evidential patterns, 20–21
- forensic odontology
 age assessment, nonadults, 492
 antemortem record collection, 496–497
 dental records in, 490
 identification in, 490, 491–492
 personnel requirements, 490–491
 postmortem examination, 492–494
 postmortem recording, 494
 radiography in, 494–496
- forensic photography
 of archaeological evidence, 171–172
 of artefactual evidence, 170–171
 digital image storage, 175
 equipment/format, 169–170, 174–175
 evidence handover, 172–173
 of human remains, 170–171

- forensic photography (*cont.*)
 image processing, 173–174
 in mortuary operations, 173
 photographer, role of, 168–169
 in site assessment phase, 170
 video recording, 173
- forensic science, in mass murder
 archaeology/anthropology, 16
 deployment chaos/quality, 17–18
 deterrent value, 15
 evidence recovery/handling, 17–18
 flexibility in, 18
 Locard's exchange principle, 16
 NGO activity in, 17
 physical evidence value, 15
 practitioner isolation in, 16–17
 publications on, 18–19
 reconstruction of events, 15–16
 types of, 463
- Frazer, J. E., 332
- gender, vs. biological sex assessment, 93, 328–329
- general bone bag, 153, 156–157
- general clothing bag, 158
- Geneva Convention, 11–13, 22, 88–89
- genocide. *See also* atrocity crime terminology
 biological genocide, 11
 international response to, 9
 legal definitions, 10–11
 20th/21st century events, 8–9
 websites on, 9
- Genocide Convention, terminology, 9, 12
- geophysical surveys
 geophysicists role in, 205–206
 personnel requirements, 205
 recording/processing of, 205
 reports in, 205
 survey grid/traverse end points, 203–205
 techniques in, 203
- geophysicists
 and geophysical surveys, 205–206
 in site assessments, 44–45
- geosciences. *See* environmental sampling terms
- Giles, E., 327–328
- Gleser, G. C., 385, 386–387
- Goudie, A. S., 478
- GPR. *See* ground penetrating radar
- GPS. *See* global poisoning device
- grave preparation/protection
 electricity/communications, 233
 engineering, 230–233
 hazard barriers, 234
 heavy equipment, 233–234
 site preparation, 229–230
 tentage, 233
- graves. *See* individual graves; mass grave
 investigations; mass graves; site assessment, site confirmation
- Haglund, W. D.
 forensic anthropology, 18–19
 mass grave definition, 10
 scavenging in site locations, 208
 taphonomic change, 316
- handedness, assessment of, 425–426
- health and safety
 introduction, 109
 legal/regulatory requirements, 6, 110–111, 115
 in site assessment, 43–44
 statement of intent, 110
- health and safety, clinical waste management
 classifications of waste, 139–140
 golden rules of management, 140–141
 liquid waste procedures, 141–142
 in mortuary operations, 97–98
 procedure summary, 132–134
 segregation procedures, 141
 spill procedures, 142
 storage procedures, 141
- health and safety, field operations
 acclimatisation, 117
 contamination avoidance, 118
 disease prevention, 118–119
 EOD procedures, 117
 hazards, examples of, 116
 hygiene standards, 119
 injury prevention, 117–118
 medical facilities in, 117
 PTSD prevention/treatment, 119
 risk assessment, 116–117
 security responsibilities, 116
 statutory instruments, 115–116
 travel risks, 119–120
- health and safety, general policy
 accident/injury reporting, 112–113
 equipment maintenance, 113
 legal/regulatory compliance, 110–111
 personnel requirements, 111–115
 risk assessment, 112

- health and safety, legislation (UK)
 - asbestos exposure, 146
 - construction activities, 144
 - dangerous goods carriage, 144
 - employee information, 144
 - explosive atmospheres, 147
 - fire precautions, 144, 147
 - hazardous chemicals, 145–146
 - hazardous substances, 146–147
 - ionising radiation, 145
 - lead exposure, 146
 - PPE standards, 145
 - statutory instruments, 115
 - work equipment, lifting, 145
 - work equipment, use, 144
 - workplace safety, 143–144, 145, 146
- health and safety, mortuary operations
 - documentation/recording, 143
 - human remains arrival, 136–137
 - immunisation procedures, 121
 - infectious disease prevention, 121, 122–123
 - medical contact cards, 121
 - operational practices, 122
 - personnel responsibilities, 120–121
 - PPE, 126–128
 - radiological safety, 123–124
 - reportable occurrences, 120
 - risk assessment, 120
 - safe operations list
 - specimen processing, 122
 - staff training, 125, 135–136
 - supervision of, 124–126
 - wet activity area practices, 121–122
- health and safety, mortuary specifications
 - engineering services, 134
 - wet/dry area practices, 134–135
- health and safety officer (HSO)
 - in field operations, 116
 - and injury prevention, 117–118
 - mortuary safety responsibilities, 124–126
 - risk assessment, 116–117
 - role of, 41, 111–114
 - staff training, 135
- health and safety, postmortem examinations. *See also*
 - postmortem examination terms
 - accident/injury reporting, 132
 - equipment preparation, 128–129
 - infection control, 129, 131–132
 - observation of, 142–143
 - organ dissection, 130
 - room preparation, 128
 - sharps usage/disposal, 129–130
 - skull opening techniques, 130
 - splash avoidance, 129
 - tissue specimen procedures, 130–131
 - unauthorised persons in, 132
 - waste disposal, 132–134
- heat modified remains, analytical techniques
 - bone fragment examination, 421, 422, 423–424, 461
 - and burnt bone, 422
 - and dehydrated/dry bones, 422
 - DNA analysis, 424–425
 - documentation/recording, 421–422
 - microscopic examination, 423
 - and oxidation, 422–423
 - weight of bone, 420–421, 422
- heat modified remains, assessment
 - bone-fused material, 425
 - demographic characteristics, 424
 - documentation/recording, 419–420, 425
 - macroscopic examination, 419
 - methodology, 418–419
 - pathology/trauma, 425
 - recovery/preservation techniques, 419
- Hershkovitz, I., 368–369
- Hirschberg, J., 342–344
- historical context, of mass murder, 7–9
- Holocaust Restitution Movement, 13
- Horrocks, M., 481
- Houghton, P., 342
- Howells, W. W.
 - ancestry estimation, 327–328
 - metrical analysis, 434
- Hrdlicka, A., 16
- HSO. *See* health and safety officer (HSO)
- human remains recovery
 - clothing search, 259
 - conservation measures, 261
 - documentation/storage, 262–263
 - ethical principles in, 22
 - evidence processing, 40, 85–87
 - heat-modified remains assessment, 95
 - nonadult remains, 262
 - preserved bone, clothed, 261
 - preserved bone, unclothed, 261–262
 - procedure summary, 263
 - saponified bodies, 259–260
 - and site formation, 67–68
 - skeletonised remains, 260–262

- human remains recovery (*cont.*)
 soil collection, 262
 storage/transportation, 156
 unstable bone, 262
- humanitarian considerations
 and ancestry estimation, 323
 in atrocity crime investigation, 12–13, 14, 88–89
 categorical vs. personal identification, 296
 in cause/manner of death, 459
 and evidence processing standards, 20
 and evidentiary goals, 22, 40
 forensic anthropology/archaeology in, 16, 183–184, 216–217
 identification objectives, 273–274, 383
 information dissemination, 55–56, 72, 98
 personnel debriefing, 54
 in postmortem examinations, 88–89, 269, 279–280
 repatriation goals, 269
 research, lack of, 190–191
 in scene of crime examination, 148
 in site excavation/evidence recovery, 57–58, 74–76
 viewing of remains, 513
- humanitarian law
 international structures, 14
 and war crimes, 11–12
- Hunter, J. R.
 ethics, 21
 field craft methods, 207–208
 single-use grave excavation, 249
 site definition methods, 47
- ICC. *See* International Criminal Court (ICC)
- ICRC. *See* International Committee of the Red Cross (ICRC)
- ICTR. *See* International Criminal Tribunal for Rwanda (ICTR)
- identification, positive
 and antemortem data, 98–99
 and cause/manner of death, 459
 and computer software, 491
 and families of missing (victims), 2
 and postmortem examinations, 491
 vs. presumptive identification, 87
 and site confirmation, 211
 and skeletal analysis, 295
- identification, presumptive
 anthropological methods, 309
 with biological features, 273–274
 and cause/manner of death, 459
 defined, 40
 and dental prostheses, 167
 identification data, 100–101
 in mortuary procedures, 76
 vs. positive identification, 87
 in postmortem examinations, 87, 88–89
 and sexual differentiation, 336–342
 and skeletal pathologies, 394–395
- identifying features. *See also* demographic characteristics assessment; individuating characteristics assessment
 age at death, 274
 postmortem interval estimation, 274
 presumptive identification, 273–274
 special features, 274
 stature/body mass, 274
- identity concepts (group), 7
- immunisations, 43–44, 83, 118–119
- individual graves, vs. mass murder sites, 19
- individuating characteristics assessment. *See also* demographic characteristics assessment
 dentition, 94–95
 handedness, 94
 in heat-modified human remains, 95
 living stature, 94
 photography in, 95–96
 postmortem influences, 95
 radiography in, 95
 sampling policy, 96
 skeletal pathology/trauma, 94
- Inforce Foundation
 ethical code of conduct, 23–26
 expert/specialist fields, 19
 publications of, 18–19
 purpose of, 17–18
- information dissemination
 and investigating organisations, 85, 167
 mortuary operations, site closure, 98
 by psychosocial professionals, 513
 site assessment completion, 55–56
 site excavation, completion/closure, 73–74
- International Committee of the Red Cross (ICRC)
 community impact assessment, 22–23
 and humanitarian law, 11–12
 identification, forms of, 167
 and individual identification, 273–274
- International Criminal Court (ICC)
 evidentiary requirements, 14
 mandate/jurisdiction of, 13–14

- International Criminal Tribunal for Rwanda (ICTR), 11, 13
- INTERPOL, AMD form, 502
- investigation protocols. *See also* ethical code of conduct; ethics; site assessment terms
- community impact assessment, 22–23
 - database usage in, 39
 - defined, 39
 - DNA analysis in, 40
 - evidence processing, 39
 - flexibility in, 5–6, 18
 - and grave size, 1
 - and human remains recovery, 40
 - as methodological framework, 5
 - personnel qualifications, 40–41
 - phases of activity, 4–5
 - predeployment activities, 3–4
 - scope of activities, 3–4
 - variation from/flexibility in, 39–40
- investigation protocols, establishment of
- evidentiary goals, 1–2
 - judicial contexts, 2
 - moral imperatives for, 2
 - rationale for, 1
- Iscan, M. Y., 376–377
- Jantz, R. L., 327–328
- Jessee, E., 9–10
- Jonassohn, K., 7
- justice/retribution concepts, 13
- Klinefelter's syndrome, in biological sex assessment, 341–342
- Lamendin, H., 345, 381–382
- Lazenby, R. A., 206–207
- least effort principle, 206
- legal and regulatory requirements. *See also* health and safety, legislation (UK)
- health and safety, 6
 - scene of crime activities, 6
- legal contexts, of atrocity crime investigation. *See* sociopolitical-legal contexts
- Lemkin, R., 7–8, 10, 11
- liaison activities. *See* education/public liaison activities
- Locard's exchange principle
- disposal scenes, mass murder, 20–21
 - evidence from body removal, 245
- Loe, L., 311–312
- logistics manager/officer
- in excavation/evidence recovery, 61, 64
 - and injury prevention, 117–118
 - in site assessments, 44–45
 - surface evidence recovery, 65–67
- Loth, S. R., 376–377
- Lovejoy, C. O., 377–379
- Lowe, J. J., 481
- Maat, G. R., 368–369
- Manhein, M. H., 207–208
- manner of death. *See* death, cause/manner of
- Mant, A. K., 10
- Maples, W. R., 368
- Maresh, M. M., 366
- mass grave investigations
- approaches/phases, 189
 - climate/environment, 190, 237
 - community impact assessment, 22–23
 - forensic archaeology in, 183–184
 - goals of, 183
 - personnel qualifications, 185–187
 - regional/cultural approaches, 185–188
 - resource availability, 190
 - scenario types, 184–185
 - standards of work, 187–189
- mass graves
- defined, 9–10
 - functions of, 191–192
- mass murder. *See also* atrocity crime terminology;
- disposal scenes, mass murder; forensic science, in mass murder
 - in animal species, 7
 - historical context of, 7–9
 - identity concepts (group), 7
 - international response to, 8
- mass rape, 11
- Mastwijk, R. W., 368–369
- mechanics (personnel)
- and logistics, 61
 - in site preparation, 233–234
- metrical analysis, adult skeletons
- cranial measurements, 434–438
 - FORDISC in, 434
 - postcranial measurements, 442
- metrical analysis, nonadult skeletons
- cranial measurements, 432–433
 - postcranial measurements, 433–434
 - uses of, 432

- military forces, and war crimes, 11–12
- minimum number of individuals (MNI)
- determination
 - applications for, 305–306
 - biological profile differences, 307
 - DNA analysis, 308
 - documentation/recording, 308
 - element duplication, 307
 - inventory phase, 93, 306–307
 - metrical methods, 307–308
 - resource availability, 306
- missing persons, families of. *See* families of missing (victims)
- MMT. *See* mortuary management team (MMT)
- MNI. *See* minimum number of individuals (MNI)
- determination
- Moore-Jansen, P. H., 327–328
- Moore, P. D., 479
- morphology. *See also* biological sex assessment terms
- anatomical, 302
 - crown/root, 302–303
 - rib end, 376–377
 - skeletal, 303
- mortuary decontamination/disinfection
- blood/body fluids, 137
 - disinfectants, type and use of, 138–139
 - housekeeping standards, 137, 139
 - instrument kits, 138
 - for PPE, 138
 - surface cleaning methods, 137–138
 - terminology in, 137
- mortuary management team (MMT)
- in education/public liaison activities, 78
 - and HSO appointment, 111
 - information dissemination, 73–74
 - photographic evidence management, 84
 - role of, 77–78
 - safety responsibilities, 125
 - security responsibilities, 83
 - structure/organisation, 82
- mortuary management team (MMT), procedure
- establishment
 - ageing techniques, 345
 - ancestry estimation, 323–327
 - demographic assessment, 297–298, 309
 - skeletal pathology/trauma, 391–393, 396, 397, 423
 - software selection, 323
 - tissue sampling, 426
- mortuary manager
- personnel entry control, 159
 - role of, 78
 - in site commissioning, 82–83
 - viewing procedures, 284–285
- mortuary operations. *See also* health and safety,
- mortuary operations
 - goals of, 76
 - protocol summary, 76, 99–101
- mortuary operations, evidence management
- of anthropological samples, 84
 - of clothing, 84
 - documentation/recording, 84–85
 - human remains/recovery, 84, 85–87
 - of photographs, 84
 - of radiographs, 83–84
- mortuary operations, planning
- location criteria, 78
 - MMT structure, 77–78
 - protocol summary, 76
 - space layout/storage criteria, 78–81
- mortuary operations, site closure
- cleaning/disinfection, 97
 - evidence handover, 98–99
 - evidence processing, 97
 - information dissemination, 98
 - personnel debriefing, 98
 - site decommissioning, 98
 - waste management, 97–98
- mortuary operations, site preparation
- commissioning activities, 82–83
 - equipment requirements, 81–82
 - health and safety issues, 83
 - personnel requirements, 82, 83
 - security precautions, 83
- mortuary procedures
- clothing from bodies, 270
 - dissection decision, 269
 - documentation/recording, 292–294
 - and grave age, 269
 - medicolegal goals, 269
 - personnel entry control, 159
 - personnel requirements, 268–269
 - property/exhibits, 270
- mortuary procedures, anatomical pathology
- technologist
 - body reconstruction, 284
 - medicolegal duties, 283
 - and skeletonised remains, 285–286
 - viewing, body preparation for, 284–285

- mortuary procedures, anthropologist
 cause/manner of death, 275
 clothing from bodies, 164–165
 dentition assessment/examination, 94–95, 410–411
 evidence management, 84–87
 final reports, 97
 forensic odontology, 491
 heat-modified human remains, 95
 identification, forms of, 167
 metrical analysis, sex assessment, 335–336
 parity status in females, 344
 photographic requirements, 95–96
 postmortem examinations, 88, 92–93, 96
 sampling policy, 91
 and taphonomic change, 311–312
- mortuary procedures, forensic radiographer
 equipment and storage, 289–291
 forms and records, 291–292
 personnel requirements, 286
 primary survey, 286–288
 secondary survey, 288–289
- mortuary sample recording form, 165–166
- mortuary support team, structure/organisation, 82
- Munsell colour chart, 476
- Naismith's Rule, 206
- nongovernment organisations (NGOs)
 aerial imagery/cartography of, 47–48
 and community impact assessment, 22–23
 in desk-based assessments, 44
 evidence handover, 98–99
 in forensic investigation of atrocity crimes, 17
 identification data, 100–101
 information dissemination, 55–56
 and investigation goals/resources, 5–6
- Nuremberg Tribunal, 11
- occupational health officer, 122–123
- O'Connell, L. E., 341–342
- O'Connor, T., 210
- odontologist. *See also* forensic odontology
 dental prostheses, 167
 and dentition examination, 410
 in postmortem examinations, 88, 92–93
 role of, 490–491
- odontology. *See* forensic odontology
- Ortner, D. J., 393, 394–396
- Osbourne, D., 377–379
- osteometric assessment, FORDISC in, 328
- Ousley, S. D.
 ancestry estimation, 327–328
 stature estimation, 386–387
- Owsley, D. W., 212
- parturition assessment
 documentation/recording, 344
 methods, 344
 preauricular sulcii/pubis pitting, 342
 pubic tubercle extension, 342–344
- passive conservation. *See* conservation measures
- pathologist
 ageing nonadults, 346
 analysis method decisions, 87
 clothing from bodies, 164–165
 dissection decision, 269
 documentation/recording, 459
 evidence management, 84–87
 exhibits, bodies, 162–164
 final reports, 97
 forensic odontology, 491
 forensic photography, 173
 health and safety instruction by, 135
 identifying marks, 167
 infection control, 131–132
 mortuary safety responsibilities, 124–126
 postmortem examinations, 88–90, 96
 PPE for, 127–128
 radiography, 88
 sampling policy, 90–91
 skeletal pathology/trauma assessment, 94
- personal protective equipment (PPE)
 as health and safety requirement, 114–115
 in mortuary operations, 126–128
 and postmortem examination observation, 142–143
- personnel debriefing. *See also* information dissemination
 in excavation activities, 72, 187–188
 at mortuary site closure, 98
 at site assessment completion, 54
- personnel qualifications/requirements
 APT, 125
 in dentition examination, 410
 in forensic archaeological excavation, 217, 218–219, 251–252
 in forensic odontology, 490–491
 forensic radiographer, 286
 and geophysical surveys, 205
 health and safety officer, 41

- personnel qualifications/requirements (*cont.*)
 and investigation protocols, 40–41
 and mass grave investigations, 185–187
 and mortuary procedures, 268–269
 in postmortem examinations, radiography, 88
 in site assessments, 44–45
 in skeletal analysis, 460
 in skeletal remains, defleshing/cleaning, 297–298
 in tissue sampling, 430
 and vaccination/immunisations, 43–44, 83, 118–119
- photographer. *See also* forensic photography
 clothing from bodies, 164–165
 evidence management, mortuary operations, 84
 evidence processing, 52–53
 in excavation/evidence recovery, 62, 69
 exhibits, bodies, 162–164
 identification, forms of, 166
 in individuating characteristics assessment, 95–96
 in postmortem examinations, 90
 in site assessments, 44–45
 site recovery management steps, 236
 site videography, 152
 skeletal pathology/trauma assessment, 94
 photographic log, exhibits from bodies, 162–164
- photography. *See* forensic photography
 political contexts. *See* sociopolitical-legal contexts
 popular culture, atrocity crime terminology, 10
 positive identification. *See* identification, positive
- postmortem examination. *See also* health and safety,
 postmortem examinations
 documentation/storage, 96
 final reports, 97
 goals of, 87
- postmortem examination, anthropology. *See also*
 demographic characteristics assessment;
 individuating characteristics assessment
 goals of, 92
 organisation/flow chart, 92
 pretreatment activities, 92–93
 skeletal inventory, 93
- postmortem examination (medico-legal). *See also*
 death, cause/manner of; identifying features;
 specimen collection/sampling
 dissected organs, 271
 documentation/recording, 271
 grave site visits, 271–272
 objectives of, 271
 pathologist's role, 273
 photography, 271
 preparation for, 272
 procedure summary, 272–273
 specialist consultations, 271
- postmortem examination, pathology
 and clothing/personal effects, 89–90, 91
 conservation measures, 91
 dental/skeletal surveys, 90
 documentation/storage, 91–92
 goals of, 88–89
 and photography, 90
 sampling policy, 90–91
 soft-tissue protocol, 89
- postmortem examination, radiography
 documentation/recording, 88
 health and safety procedures, 123–124
 in individuating characteristics assessment, 95
 personnel requirements, 88, 123–124
 and photography, 87
 primary/secondary surveys, 87–88
 safety standards, 123
 secondary/tertiary surveys, 90
- post traumatic stress disorder (PTSD). *See also*
 traumatic events/reactions
 in catastrophic events, 510
 prevention/treatment, 119
- PPE. *See* personal protective equipment (PPE)
- precision, 296. *See also* accuracy
- presumptive identification
 defined, 40
 evidence collection, 40
- principle of least effort, 206
- probing/augering
 definitions, 50
 site assessment/confirmation, 50–51, 212
- project manager
 data storage/security, 180
 excavation/evidence recovery, 60
 genetic marker usage, 306
 genocide investigations, 273–274
 health and safety, 112–113
 information dissemination, 55–56
 risk assessment, 46
 role of, 44–45, 74–75, 149
 site assessments, 44–45
- protocols. *See* investigation protocols
- psychosocial workers personal reactions
 employer/colleague support, 514–515
 high-risk personnel, 514
 self-care, 515
 work-related stress, 513–514

- psychosocial workers, role of, 498–499
 psychosocial workers, supportive responses
 adult support, 498–499
 and community liaison activities, 513–514
 to extreme reactions, 512
 information dissemination, 513
 nonadult support, 499
 and survivors, 512–513
 trust restoration, 511–512
 viewing clothing, 507–508
 viewing remains, 508
 PTSD. *See* post traumatic stress disorder (PTSD)
 public liaison activities. *See* education/public liaison activities
 questionnaires, AMD collection, 502
 Rackham, O., 209–210
 radiation protection advisor (RPA)
 local rules authorization, 286
 responsibilities of, 83, 123–124
 risk assessment, 111–112
 role of, 111–112
 radiation protection supervisor (RPS)
 local rules authorization, 286
 responsibilities of, 123–124
 radiographer
 equipment and storage, 289–291
 evidence management, 83–85
 exhibits, bodies, 162–164
 forms and records, 291–292
 personnel requirements, 286
 in postmortem examinations, 88
 responsibilities of, 83, 123–124
 role of, 111–112
 survey, primary, 286–288
 survey, secondary, 288–289
 radiography. *See* postmortem examination, radiography
 rape, mass, 11
 reactions, traumatic events. *See* traumatic events/reactions
 Red Cross. *See* International Committee of the Red Cross
 remote sensing/imagery. *See also* air imagery; satellite imagery
 air imagery in, 196–200
 satellite imagery in, 200–202
 Resnick, D., 393, 394–396
 Rezendes, P., 209–210
 Rodriguez-Martin, C., 393, 394–396
 Romero, J., 415
 RPA. *See* radiation protection advisor (RPA)
 RPS. *See* radiation protection supervisor (RPS)
 Rwanda. *See* International Criminal Tribunal for Rwanda (ICTR)
 sampling tissue. *See* tissue sampling, external laboratory analysis
 satellite imagery
 pre-order specifications, 201–202
 resolution availability, 202
 and site location, 200–201
 spectral analysis, 202
 viewing software, 202
 scene of crime examination. *See also* data storage/security; evidence integrity/continuity terms; forensic photography
 introduction, 148–149
 SCE role in, 150
 SCM role in, 149–150
 types of investigations, 148
 scene of crime examiners (SCEs), evidence management
 exhibit logging, 153–155
 exhibit packaging, 155–156, 161
 exhibits, bodies, 162–164
 handling, 150
 handover, 56, 98–99, 158–159, 168
 in mortuary operations, 84–87, 91–92
 personnel entry control, 150–151, 159
 processing, 49–50, 52–53
 site security, 151–153
 storage, 161–162
 scene of crime examiners (SCEs), excavation/evidence recovery
 documentation/recording, 62–63, 64, 69–70
 and forensic landscape qualifications, 20–21
 role of, 60
 site recovery management steps, 236
 standards of work, 185–187
 surface evidence recovery, 66–67
 scene of crime examiners (SCEs), investigation protocols
 database usage by, 39
 evidentiary goals, 1–2
 health and safety risk assessment, 43
 role of, 20, 40
 site assessments, 44–45

- scene of crime examiners (SCEs), mortuary procedures
 and biological samples, bodies, 165–166
 clothing from bodies, 164–165
 final reports, 97
 and forensic photography, 172–173
- scene of crime examiners (SCEs), postmortem examination
 clothing/artefacts, 89–90
 conservation measures, 91
 radiography of artefacts, 88
 sampling policy, 90–91, 96
 storage (human remains), 96
- scene of crime managers (SCMs)
 evidence handover, 168
 in excavation/evidence recovery, 59, 60, 64
 in field/mortuary operations, 149–150
 personnel entry control, 150–151
 scene contamination, 151
 in site assessments, 44–45, 53–54
 site closure, 73
 standards of work, 185–187
- SCEs. *See* scene of crime examiners (SCEs)
- Scheffer, D., 12
- Scheuer, J. L.
 ageing nonadults, 346, 350
 metrical analysis, 430, 432
 skeletal maturation, 368–369
- Scholtz, H.
- SCMs. *See* scene of crime managers (SCMs)
- Scoles, P. V., 368
- sediment characteristics. *See* environmental sampling;
 soil survey systems
- semantics. *See* terminology
- senior safety advisor (SSA)
 and reportable occurrences, 120
 role of, 111–113
- sex assessment. *See* biological sex assessment
- sharps, usage/disposal of, 129–130
- Simmons, T.
 forensic anthropology, 18–19
 taphonomic change, 312
- site assessment
 documentation/recording, 53–54, 57
 evidence handover, 56
 evidence processing, 52–53
 goals of, 41
 information dissemination, 55–56
 personnel debriefing, 54
 protocol organisation/flow chart, 41–42
 protocol summary, 56–57
 site integrity, 55
- site assessment, area location
 aerial imagery/cartography, 47–48
 assessment report, 48
 geographic definition, 47
 witness statements in, 47, 192–194
- site assessment, area preparation
 groundwork requirements, 46–47
 health and safety issues, 46
 security precautions, 46
- site assessment, planning
 assessment team composition, 44–45, 56
 desk-based assessment, 44
 health and safety risk assessment, 43–44
 permissions, 43
 preplanning/logistics, 43
 protocol summary, 56
 site definition/confirmation, 45–46
- site assessment, site confirmation
 described, 211
 evidence processing, 52
 field-walking, 212
 probing/augering, 50–51, 212
 protocol summary, 57
 surface scatters, 50, 211–212
 surface stripping, 51–52, 214–216
 trenching, 51, 212–214
- site assessment, site location
 evidence processing, 49–50
 field craft in, 49
 forensic landscape, 49
 methods/approaches, 48–49
 protocol summary, 56–57
- site excavation, 73
 documentation/recording, 63
 evidence processing, 62–63, 68, 69–70, 71
 field investigation team, 68, 69–70, 71
 goals of, 57–58
 grave exposure process, 67
 outside forensic specialists, 71
 protocol organisation/flow chart, 57–58
 protocol summary, 74–76
 sieving/soil sampling, 71
 stratigraphic sequencing, 68–69
 surface evidence recovery, 65–67
 UXOs and personnel security, 70–71
- site excavation, completion/closure
 documentation/recording, 71–72

- evidence handover, 73–74
- evidence processing, 72
- final reports, 73
- information dissemination, 73–74
- off-site analysis, 73
- personnel debriefing, 72
- site closure, 72–73
- site excavation, planning
 - field investigation team, 59, 60–62
 - permissions, 59–60
 - reference code usage, 59
- site excavation, site formation
 - engineering work, 67
 - field investigation team, 68
 - human remains recovery, 67–68
 - photography, 68
- site excavation, site preparation
 - health and safety issues, 63–64
 - logistics management, 64
 - personnel requirements, 82–83
 - surveys, 64
 - UXOs and personnel security, 63–64
- site integrity/continuity, field procedures
 - personnel entry control, 150–151
 - scene contamination, 151
- site location
 - air imagery in, 196–200
 - animal tracks, 209–210
 - dogs in, 207
 - field craft in, 207–208
 - geographical profiling in, 206
 - geological knowledge in, 210
 - geophysical survey, 203–206
 - maps, 206
 - procedure summary, 211
 - psychological profiling in, 206
 - satellite imagery, 200–202
 - scavenging, 208
 - search teams, 206–207
 - soil disturbance in, 208–209
 - witness statements in, 47
- skeletal analysis
 - in field settings, 296–297
 - MMT, role of, 297
 - personnel requirements, 460
 - procedure summary, 297
 - purpose of, 295
 - quality control, 459–460
 - recording/documentation, 459
 - and resource constraints, 296
 - specialist input, 295–296
- skeletal analysis, population-specific methods
 - appropriateness of, 308–309
 - background research, 309
 - ethical considerations/consents, 309
 - method/standards development, 310
- skeletal analysis, recording forms
 - adult skeleton, 461
 - body parts assessment, 461
 - bones assessment, 461
 - overview/flowchart, 461–462
- skeletal pathology/trauma
 - analysis goals, 397
 - antemortem trauma, 398–399
 - cause/manner of death, 391
 - description methodology, 393–395
 - differential diagnosis, 393, 394
 - documentation/recording, 395–396
 - and identification of individuals, 391–393
 - lesion assessment, 396–397
 - and radiography, 394–395, 397–399
 - reference guides, 396
 - regional/cultural conditions, 396
- skeletal pathology/trauma, peri-mortem
 - descriptive phase, 399–409
 - explosive injuries, 409
 - infection, 409
 - injury interpretation, 400, 401
 - and projectiles, 400–410
 - and radiography, 407–409
 - tangential wounds, 403–407
- skeletal remains, defleshing/cleaning
 - with beetles, 300
 - by boiling, 299–300
 - documentation/storage, 298
 - by hand, 299
 - handling, fragile bones, 300
 - handling, stable bones, 300
 - necessity of, 298
 - personnel requirements, 297–298
 - by soaking, 299
 - technique selection/preparation, 298
- skeletal remains, human vs. non-human distinction
 - anatomical morphology, 302
 - anthropologist role in, 301
 - crown/root morphology, 302–303
 - documentation/storage, 304
 - macroscopic identification, 301–302
 - microscopic identification, 301–302
 - opinion categories, 303

- skeletal remains, human (*cont.*)
 skeletal/graphic exemplars, 301
 skeletal morphology, 303
- skeletal remains, minimum number of individuals (MNI) determination
 applications for, 305–306
 biological profile differences, 307
 DNA analysis, 308
 documentation/recording, 308
 element duplication, 307
 inventory phase, 93, 306–307
 metrical methods, 307–308
 resource availability, 306
- skeletal remains, reconstruction (human)
 of fragmented skeletons (single individual), 304–305
 gluing, 305
 MNI determination, 304
 necessity of, 304
- Skinner, M. F.
 area search, 206–207
 mass grave definition, 9–10
 perpetrators, impunity of, 191
- Smith, B. H., 415–416
- sociopolitical-legal contexts
 of atrocity crime investigation, 12–14
 of atrocity crime terminology, 9
 information dissemination, 55–56
- software
 ancestry estimation, 93, 323, 385
 biological sex assessment, 336
 CRANID uses, 323, 328, 434
 data storage/security requirements, 176–177
 for DVI, 491
 FORDISC uses, 93, 323, 328, 336, 385, 434
 metrical analysis, 434
 mortuary procedures, selection of, 323
 satellite imagery, 202
 stature estimation, 385
- soil survey systems, 476. *See also* environmental sampling
- SOPs. *See* standard operating procedures (SOPs) terms
- Sorg, M. H.
 area/site location methods, 208
 taphonomic change, 316
- specimen collection/sampling
 body storage, 282
 bullet/ballistic investigation, 281–282
 collection methods, 278–279
 container handling, 279–280
 death certificate issuance, 277–278
 for identification establishment, 279
 pathologist's role, 278
 specimen storage, 282
 toxicology analysis, 280–281
- SSA. *See* senior safety advisor (SSA)
- standard operating procedures (SOPs)
 defined, 39
 flexibility in, 5–6, 18
 as methodological framework, 5
 predeployment activities, 3–4
 scope of activities, 3–4
- standard operating procedures (SOPs), establishment of
 evidentiary goals, 1–2
 judicial contexts, 2
 moral imperatives for, 2
 rationale for, 1
- stature estimation
 age-related stature loss, 388–390
 from complete skeletons, 385–386
 documentation/recording, 391
 from foot bones, 386–390
 FORDISC in, 385
 from fragmented bones, 385
 limitations of, 384
 from long bones, 386–387
 methodology, 384–385
 population specific methods, 384
 relative stature, 390–391
- statutory instruments. *See* health and safety, legislation (UK)
- sterilisation, 137. *See also* decontamination/disinfection
- Stevens, J. S., 341–342
- Stewart, T. D.
 forensic archaeology/anthropology, 16
 parity status in females, 342
- stratigraphic sequencing, 68–69
- Suchey, J. M., 370–376
- surface scatters, 50, 211–212
- surface stripping, 51–52, 214, 216
- surveyor
 evidence/exhibit logging, 153
 evidence processing, 49–50
 in excavation/evidence recovery, 60, 64, 69–70
 in grave exposure process, 68

- in site assessments, 44–45
 site recovery management steps, 236
 surface evidence recovery, 65
- taphonomic change
 defined, 311
 description of, 311–312
 documentation/recording, 312
 in individuating characteristics assessment, 95
 interpretation of, 312
 overprinting, 321
 relevance of, 311
- taphonomic change, and water
 bone contact, 316
 disposition effects, 317
 entry effects, 317
 soil solution effects, 318
 transport effects, 317
 waterlogged environments, 317–318
- taphonomic change, bone surfaces
 abrasion effects, 321
 classifications of, 319–320, 321
 excavation methods, 318–319
 perimortem/postmortem features, 322
 point of recovery details, 318
 qualitative analysis, 321
 quantitative analysis, 320–321
- taphonomic change, types
 anthropogenic, 316
 bone fracture, 314
 colour change, 312–313
 deformation, 313–314
 described, 312
 erosive, 314–315
 heat modification, 313
 insect/larval, 315
 plant/fungal, 315
 post- vs. perimortem damage, 314
 scavenging, 315
- tentage, 233
- terminology
 crimes against humanity, 11
 in forensic entomology, 464–465
 genocide, 10–11
 legal definitions, 10–11
 mass graves, 9–10
 media usage/abuses, 10
 in mortuary decontamination/disinfection, 137
 politics of, 9
- tissue sampling, external laboratory analysis
 dentition analysis, 429
 and DNA analysis, 427
 documentation/recording, 430
 hair/bone/teeth/nails, 427–428
 histological studies, 428
 isotope analysis, 428–429
 personnel requirements, 430
 planning phase, 426
 plant material, 429–430
 sampling process, 426–427
 use of, 427
- total evidence recovery concept, 183
- translation, AMD collection, 502–503
- traumatic events/reactions
 background, 508–509
 and children, 510–511
 hyper arousal, 509
 intrusion, 509
 PTSD, 119, 510
 search for meaning, 509–510
 shattered assumptions, 510
 vulnerability/resilience, 510–511
- trenching. *See also* probing/augering
 forensic archaeological excavation, 237–240, 250
 site assessment/confirmation, 51, 212–214
- Trotter, M., 385, 386–387
- Tucker, M. E., 476
- Tuller, H., 249
- Turner's syndrome, 341–342
- Ubelaker, D. H.
 cranial measurements, 430
 dentition examination, 415–416
 metrical analysis, 432
- Ullrich, H., 342
- unexploded ordnance (UXO). *See also* explosive
 ordnance disposal (EOD) terms
 in excavation/evidence recovery, 68, 70–71,
 263
 excavation techniques/challenges, 20
 and mortuary operations, 123
 in site planning/preparation, 46, 56, 63–64
 universal precautions, infectious disease prevention,
 122–123
- UXO. *See* unexploded ordnance (UXO)
- vaccination/immunisations, 43–44, 83, 118–119
- Walker, M. J. C., 481
- Walsh, K. A. J., 481

Cambridge University Press

978-0-521-86587-6 - The Scientific Investigation of Mass Graves: Towards Protocols and Standard Operating Procedures

Margaret Cox, Ambika Flavel, Ian Hanson, Joanna Laver and Roland Wessling

Index

[More information](#)

-
- war crimes, 11–12. *See also* atrocity crime
terminology
- Washburn, S. L., 336
- waste disposal. *See also* health and safety, clinical
waste management
- Wasylikowa, K., 478
- wet/dry area practices
in mortuary operations, 121–122
in mortuary specifications, 134–135
PPE in, 126–128
- White, T. D.
age at death estimation, 344–345
metrical analysis, 430
- winthroping, 206
- witness statements, 47, 192–194
- workplace safety, 143–144, 145, 146
- Wright, R.
mass grave investigations, 18–19
in metrical analysis, adult skeletons,
434