

Index

- abiotic pollination, 2, 182–188
 anemophily, 182–185
 hydrophily, 185–187
 abscisic acid (ABA), 312, 315, 407–408
 adventitious/adventive embryony, 361–363,
 367, 380
 agamospermy, 357–358
Agrobacterium-mediated transformation, 437,
 443, 447
 aleurone layer, 306–310, 315, 399
Allium, 65, 133, 139–140, 370, 423
 allogamy, 175, 284
 alveoli formation, 303–307
 ambophily, 36, 202
 Amici, Giovanni Battista, 28
 amoeboid tapetum/periplasmoidal tapetum/
 invasive tapetum, 52–53, 56
 amphitropous ovule, 125, 157
 amylogenesis, 91
 amyolysis, 91
 anatropous ovule, 122, 124, 156, 394
 androdioecious/androdioecy, 17, 179
 androecium, 9, 11–12, 82
 androgenesis, 438–442
 andromonoecious, 17
 anemochory, 413, 417–418
 anemophily, 182–185
Angraecum sesquipedale, 28
 aniline blue, 249, 266, 279
 anther, 2, 6–7, 12–13
 bitheous, 42, 96
 development, 42–45
 events, 57
 locular fluid, 59
 monothecous, 13, 41
 structure, 41–42
 thecae, 12, 41
 anther culture, 439, 441, 452–456
 anther dehiscence, 2, 43, 45, 48–49, 52, 57–60,
 61, 69, 176, 180, 182–184, 192
 dehydration, 57–60, 66, 86, 225, 380, 384,
 392, 410, 414
 time, 206
 types, 57
 anther primordium, 43, 46
 anther wall layers, 2, 45–56, 96, 98
 endothecium, 41–44, 48–52, 57, 61, 91, 131
 epidermis, 41, 45–48, 57, 96
 middle layers, 41, 44, 51–52
 tapetum, 41, 44, 52–56, 60, 63, 66, 68, 75–77,
 80, 97, 99, 264–265
 anther wall ontogeny, 44
 antipodal cells/antipodals, 32, 137–144, 148,
 150–151
 ant pollination/myrmecophily, 192
 apical cell (ap/ac), 327–331
 apomixis, 357–358, 365
 applications, 375
 genetics, 373
 study methods/screening, 379
 role, 373
 types, 366
 apical embryo domain, 332, 334
 apomeiosis, 357, 366
Arachis hypogea, 295
 archesporial cell, 43, 45, 49–50, 96, 126, 132,
 361, 366
 aril, 410, 414–415
Aristolochia, 63, 86, 109, 133, 180, 191–193, 417
 autochory, 413–415
 autogamy, 175–176, 180, 271
 auxins, 312, 337–338, 364

- baculae/columellae, 75, 77–79, 100, 109
 bagging experiments, 3, 379
 Bambacioni's effect, 143
 barochory, 414
 Barrett, Spencer C. H., 36
 basal cell (bc), 297, 327
 beetle pollination/cantharophily, 195
 bee, wasp pollination/melittophily, 189–191
 Bhandari, Narinder Nath, 32
 Bhatnagar, S. P., 35
 Bhojwani, Sant Saran, 34
 biotic pollination, 2, 174, 188–202
 bird pollination/ornithophily, 195–197
 Bosman, Willem, 26
 bracts, 14
 Brassicaceae, 69, 81, 94, 109, 124, 138, 157–158,
 163, 189, 218, 225, 258, 398
 Brongniart, Adolphe, 28
 butterfly pollination/Psychophily, 192–193

 Callitrichaceae, 177
 callose, 4, 55, 66, 77, 133, 135, 227, 249, 266,
 380
 calyx, 2, 9, 11–12
 Camerarius, Rudolf Jacob, 25
 campylotropous seeds, 395
Cansjera rheedii, 299
 cantharophily/beetle pollination, 195
Capsella, 124, 145–146, 150, 233, 325–327, 332
 carpel, 13, 16, 121, 127, 159, 218, 404, 415
 origin, 16
 closure, 17
 caruncle, 412
 caruncula, 410
 caryopsis, 406, 425
 Cass, David D., 33
 central cell, 30–31, 137–141, 143, 145, 150–153,
 217, 231–236, 289, 304–308
 ultrastructural changes, 290–292
 central embryo domain, 332–334
 centromere microtubules, 65
 chalaza, 120, 122, 124, 133–134, 138, 156–157,
 160
 chalazogamy, 233
 chalazosperm, 317
 chasmogamous flowers, 175, 178
 chiropterophily/bat pollination, 198
Chorisia speciosa, 404, 417

Chrysanthemum cinerariaefolium, 143–144
 cleistogamous flowers, 175, 178
 Clustered Regularly Interspaced Short
 Palindromic Repeat (CRISPR), 277
 co-cultivation, 442, 451
 coenocytic/multicellular endosperm, 294
 coleoptile, 325, 338–340, 347
 coleorhiza, 325, 339–340
 colporus, 115
 colpous, 87, 89, 111
 compitum/transmitting tissue, 17, 218
 corolla, 2, 910–12, 177, 190, 192–193, 196, 200,
 209, 281–282
 cotton fibers, 402
 cotton/*Gossypium*, 402
 Coulter and Chamberlain, 30
 crassinucellate ovule, 126, 128, 132, 160, 361
 cross-pollination, 14, 27, 175–179, 270
 promoting mechanisms, 179–182
 cryopreservation, 203
 Cucurbitaceae, 104, 294, 297, 401
 cyto-histological screening, 380
 cytokinesis (microsporogenesis), 64–65
 phragmoplast, microtubules, 65
 simultaneous-type, 64
 successive-type, 64
 cytokinins, 312
 cytotoxic channels, 61
 cytomixis, 61
 cytoplasmic male sterility, 92–93

 Dafni, Amots, 36, 36
 Darwin, Charles, 27
 diaspores, 390, 394, 417, 420, 423–424
 dichogamy, 2, 4, 14, 179–180, 182–183
 dicliny/dioecy, 16, 179
 diploendozoochory, 421
 distyly, 181, 232, 262
 double fertilization, 4, 29–30, 36, 72, 74,
 233–236, 289, 306, 409
 double haploid, 437–439, 453

 ecological, evolutionary, genetical approaches,
 integration, 35–38
 egg cell, 4, 29, 72, 137, 141, 143, 145–147, 152,
 164, 233, 279, 290, 324, 360, 367, 392,
 437, 439, 449
 elaioplasts, 54, 81

Index

465

- elaiosomes, 390, 410
 elastoviscin, 81–82
 emasculation, 7, 379
 embryo, 324–336, 341
 development, 328–331
 development regulation, 313–314
 nourishment, 347
 nutrition, 313
 structure, 324–325
 embryo-endosperm development, 4, 366
 embryo-endosperm relationship, 313, 347
 embryogenesis, 29–30, 35, 144, 164, 295,
 313–314, 324–347, 363, 365, 373, 439,
 452–453
 dicots, 332–334
 monocots, 334–336
 Poaceae, 339–340
 embryogeny, 324, 328–329, 332, 336, 339–341
 embryo patterning, 332–334
 embryo sac
 cellular anatomy, ultrastructure, 144–151
 unique embryo sacs, 151–153
 embryo sac, development types, 132–144,
 159–164
 embryo sac/female gametophyte, 131–144,
 149–152, 231–233, 289, 364, 437, 446,
 448
 embryo sac haustoria, 151, 347
 embryo surrounding cell, 306
 Embryo Surrounding Region (ESR), 307, 310,
 313, 315
 enantiostry, 14, 182
 endocytosis, 229–230
 endopachychalazal seeds, 395
 endosperm
 cell patterning, 306, 310
 development, 306–309
 free nuclear, 296–297, 300, 303, 306
 functions, 313–315
 genomic imprinting, 293
 hormonal regulation, 312
 endospermous/albuminous seeds, 290, 391, 396
 endosperm
 cellular, 297–300
 composite, 302
 helobial, 31, 300–301
 nuclear, 293–297
 ruminant, 302
 endostome, 121
 endothelial wall thickenings, 48, 58, 61
 endothelium, 129–131, 158, 404
 endozoochory, 409, 413, 420–423
 Endress, Peter K., 36
 entomophily/insect pollination, 188–195
 enzyme, 276, 407, 429
 callase, 53, 55, 63
 callose synthases, 60
 cutinases, 226
 esterase, 105, 218, 226, 244–246
 peroxidases, 218, 239, 244–246, 407
Ephedra, 36
 ephydrophily, 185, 187–188
 epistase, 129
 epizoochory/exozoochory, 413, 420
 exine, 41, 54, 56, 75–81, 83, 85, 89, 91, 264
 exine formation, 77–79
 plasma membrane undulation model, 77
 primexine mediated exine development, 77
 tensegrity model, 77
 exine-sculpting, 66
 exocytosis, 80, 229
 exostome, 121, 404, 410, 412
 extra cellular matrix, 80, 218, 227, 270
 Fabaceae, 12, 83, 196, 258, 399, 410
 female germline transformation, 446–450
 floral dip, 437–438, 447–448, 456
 floral spray, 448
 ovary/pistil drip transformation, 449–450
 In Planta Agroinfiltration, 447
 pollen tube pathway mediated
 transformation (PTT), 449
 Female Germ Unit (FGU), 144
 fertilization interval, 217
 flexistyl/heterodichogamy, 14, 182
 floral biology, 2, 4, 7
 floral meristematic layers, 43
 floral reward, 207
 floral visitors, 196
 Flow Cytometric Seed Screening (FCSS), 380
 flower
 bisexual, perfect/monoclinous, 13
 hermaphrodite, 2, 14, 17
 organization, 11–14
 origin, 16–18
 pistillate/female, 13–14, 16, 177, 179

- staminate/male, 13–14, 16, 179, 185
- unisexual/imperfect/diclinous, 13
- flowering
 - ABCDE model of, 18–19
 - induction of, 18
- Fluorochromatic Reaction (FCR) Test, 105
- fly pollination/myophily, 191–192
- fly-trap mechanism, 191, 193
- foot layer, 75, 77
- Friedman, William E., 35
- Fritz Müller, 27
- frugivores, 414, 421
- functional megaspore (FM), 119, 132–136, 140
- fusogens, 227

- gametic transformation, 439, 443, 449
- gametophytic apomixis, 367–371
 - apospory, 368–369, 371
 - diplospory, 367–370
- Gametophytic Self-incompatibility (GSI), 258–259, 260–261, 267–268
- Gärtner, Carl Friedrich von, 27
- geitonogamy, 175–176
- generative cell, 57, 66–72, 79, 100, 226, 439
- genetic diversity, 7, 176, 391
- genetic regulation
 - dicots, zygotic embryogenesis, 348
 - pollen tube penetration, 226
 - polyembryony, 365
 - apomixis, 373
- germinal apertures (GA), 75
- germline transformation, factors, 450–451
- gibberellins, 18, 47, 312, 408
- grasses, 57, 59, 72, 182, 186, 258, 262, 272, 306, 309, 339, 390, 420
- Grew, Nehemiah, 25
- Guha, Sipra, 32, 441
- Guignard, Léon, 30
- gynodioecious, 17
- gynoecium, 9, 11, 13, 18, 20, 82
 - apocarpous, 13
 - syncarpous, 13
 - gynomonoecious, 17

- haplotype, 263, 268–269
- harmomegathy, 86
- haustorium (endosperm), 151, 296–302, 313

- Henslow, George, 27
- Herbert, William, 27
- herkogamy, 2, 4, 14, 180–182
- hermaphroditism, 14
- Heslop-Harrison, Jack, 31
- heterodichogamy/flexistily, 14, 182
- heterofertilization, 72
- heterostyly, 14, 181–182, 262–263
- hilum, 393–394
- H⁺-ion sucrose transporter, 58
- histochemistry (floral rewards of), 207–211
- Hofmeister, Wilhelm, 28
- homeotic genes, 6, 11, 19, 49
- hourglass like cell, 399
- hydrochory, 413–414, 418–420
- hydrophily/hyphidrophily, 185–187
- hypocotyl, 324–325, 333–334, 395, 428
- hypostase, 128–129, 347, 404

- inbreeding depression, 176, 179
- Index of Self-incompatibility (ISI), 284
- Inner Secondary Parietal cells (ISP), 43
- insect–plant association, 188
- insect pollination/entomophily, 188–195
- integumentary embryony, 361
- integumentary tapetum, 129
- internal geitonogamy, 177
- inter-specific incompatibility, 257, 279
- intine, 27, 68, 75, 79–80, 85, 91, 226, 264
- intra-specific incompatibility/self-incompatibility (SI), 4, 6, 257–258
- intra ovarian pollination, 274
- in vitro* pollen tube germination, factors, 240
 - boron, 241
 - calcium, 240
 - flavanols, 241
 - physical, 241
 - polyethylene glycol (PEG), 241
 - sucrose/carbohydrates, 240
 - in vitro* pollination, fertilization, 275
- Iodina rhombifoila*, 299

- Jensen, William August, 31
- Johri, Brij Mohan, 32

- Kapil, Ravinder Nath, 31
- Katayama, Y., 32

- kinase, 68, 86, 229, 232, 235, 239, 267, 269
 Knight, Thomas, 27
 Knox, Robert Bruce, 33
 Költreuter, Joseph, 26
- late acting self-incompatibility (LSI), 258, 272
 Leguminosae, 294, 295, 395
 Linnaeus, Carolus, 26
 Loranthaceae, 32, 153, 302, 327, 329, 394, 406
- Maheshwari, Panchanan, 30
 Maheshwari, Satish Chandra, 32, 441
 malachophily/snail pollination, 198–199
 male gametes/sperm cell, 69–71, 100, 103,
 216–217, 227, 233, 236, 257, 272, 289,
 360, 409
 male gametophyte/pollen grains, 40, 55, 60, 119,
 244, 364
 male germline transformation, 439–441
 Agrobacterium mediated transformation,
 442–443
 electroporation, 445
 gametophytic pathway, 439
 MAGELITR, 437–438, 444, 446
 microinjection, 445
 particle bombardment method, 444
 sonication, 445
 sporophytic pathway, 439
 male germ unit (MGU), 33, 71–74
 mammal
 pollinators, 199–200
 seed dispersers 414, 421–423
 mamelon, 153
 mating system, 3–4, 6, 36, 175, 284
 megagametogenesis, 119, 131, 136–137
 megaspore mother cell (MMC)/
 megasporocytes, 131–132, 367, 370
 megasporogenesis, 119, 132–133, 136, 138, 149,
 373
 meiotic diplospory, 367–370
 melittophily/bee, wasp pollination, 189–191
 mentor pollen, 273, 443
 mesogamy, 233
 metaxenia, 409
 microgametogenesis, 41, 45, 60, 66–69
 micropyle, 120–125, 156, 232–233, 272,
 393–395
 microspore mother cells (MMCs)/pollen
 mother cells (PMCs), 43, 51, 53, 60–62,
 64, 91
 microsporogenesis, 35, 41, 45, 60–66
 mitotic diplospory, 369–370
 Mohan Ram, H. Y, 33
 monoecy, 14–15
Monotropa uniflora, 341
 Moringaceae, 41, 404
 morphology, structure of seeds, 392–394
 moth pollination, 193–195
 Müller, Hermann, 27
 myophily/fly pollination, 191–192
 myrmecochory, 413, 421–424
 myrmecophily/ant pollination, 192
- naked embryo sacs, 152–153
 Nawaschin, Sergius, 29
 nectar, 2, 33, 174, 183, 189, 192, 195–198, 201
 nectar guides/guide marks, 12, 189, 192, 200
 nectary, 20, 192
 nectar robbing, 192
 Nei, M., 32
 nemec phenomenon, 89–90
 non-endospermous/ex-albuminous seeds, 290,
 391, 396
 non-pseudogamous apomicts, 373
 non-reproductive roles, pollen, 90
 NPC System, 88–89
 nucellar embryony, 35, 361–363
 nucellar plasmodium/pseudoembryo sac, 151,
 236, 313–315
 nuclear endosperm, cellularization of, 303–307
 nucleo-cytoplasmic domain (NCD), 304
- obcampylotropous seeds, 395
 obligate pollination, 177, 193
 obturator, 127–128
 octant configurations, 329–331
 ombrohydrochorous species, 414
 operculum, 410
 Orchidaceae, 31, 69, 81, 189, 340, 406
 Orobanchaceae, 340, 342
 orthodox seeds, 397
 orthotropous seeds, 395
 outer secondary parietal cells (OSP), 43
 ovule clearing

- with Herr's solution, 383–384
- with Hoyer's solution, 384
- with methyl salicylate, 384
- ovule associated structure, 127–131
- ovule, degree of curvature, 122–125, 155–158
 - amphitropous, 125
 - anatropous, 124
 - campylotropous, 124–125
 - circinotropous, 125
 - hemitropous, 124
 - orthotropous/atropous, 122–124
- ovule, development, 121–122
- ovule integuments,
 - ategmic, 121, 406
 - bitegmic, 121, 126, 392, 398–399, 401, 404
 - unitegmic, 121, 126
- ovule, nucellus thickness, 126–127
- ovule production, 285, 432
- ovule receptivity, 168
- ovule structure, 120–121

- pachychalazal seeds, 394, 395
- palynology, 41, 75, 81, 108
- parent–offspring conflict, 364
- perichalazal seeds, 395
- perisperm, 316–317
- phalaenophily/moth pollination, 193–195
- phenology, 2, 5, 202, 413
- plant germline transformation, 437–438
- Poaceae, 16, 53, 406
- Podostemaceae, 45, 82, 121, 126, 136, 151–152, 177, 185, 236, 290, 313, 315, 342, 414
- pollen
 - adhesion, 4, 222–223, 239, 271
 - aperture, 36, 85–86
 - capture, 218, 222–224
 - characteristics, 81–88
 - coat substances, 75, 80–81, 86, 222
 - germination, 72, 74, 104, 222, 225–226, 240–242, 247, 274–275
 - hydration, 81, 85, 103, 216, 222, 225–226, 239–240, 265, 271
- pollen development, 60–69, 75, 90
 - arrest, 85
 - metabolism, 91–92
- pollen dispersal unit (PDU), 81–85
 - dyad, 83
 - massula, 83
 - monad, 59, 82, 84
 - pollinarium, 83
 - pollinium, 83
 - polyad, 83, 241
 - pseudomonad/cryptotetrad, 85
 - tetrad, 83–84
- pollen grains, bi, tri-cellular, 69
- pollenkitt, 80–81, 83, 183
- pollen mother cells, 43, 51, 53, 60–62, 64, 91
- polar axis (PA), 87–88
- pollen
 - fertility, 103
 - polarity, 87, 226
 - presentation, 82
 - shape, 81, 88
 - symmetry, 88
 - viability, 103–104
- pollen storage, 202–204
 - examples, 204
 - methods, 203
- pollen tube
 - cytoplasm, 227–229
 - entry, ovule, 233
 - growth, 4, 17, 149, 216, 218, 227–230, 239, 240–241, 249, 258, 265, 267, 271, 276
 - path, 249
 - penetration, 29, 153, 177, 221, 226
 - wall, 229–230
- pollen tube guidance, 149, 231–233
 - funicular, 232–233
 - micropylar, 232–233
 - ovular, 232–233
 - pre-ovular, 231–232
- pollen wall structure, 75, 81
- pollen wall synthesis, 75–80
- pollination biology, 2–3, 7, 36, 37, 174
- pollination syndrome, 2, 3, 175, 181, 211
- polyembryony, 358–365
 - adventive embryos, 361
 - applications, 365
 - causes, inheritance of, 364
 - classification of, 363
 - embryo sac, 360
 - false, 363
 - proembryos, 359
 - true, 363

- polyspermy, 236
 polytubey, 236
 porogamy, 233
 pre-anthesis cleistogamy, 177
 primary endosperm cell (PEC), 291, 307
 primary endosperm nucleus (PEN), 234, 289–292, 302
 primary parietal cells (PP), 43
 primary sporogenous cells (PS), 41, 43, 60
 programmed cell death (PCD), 52–54, 56, 61, 63, 150, 232, 268, 270, 309
 protogyny, 180, 192
 pro-Ubisch bodies, 54
 pseudoembryo sac/nucellar plasmodium, 151, 236, 313–315
 pseudo self-compatibility, 272
 psychophily/butterfly pollination, 192–193

 radial micro-tubular system (RMS), 303
 Rangaswamy, N. S., 35
 recalcitrant seeds, 397
 reduced embryos, 341
 reproductive biology, flowering plants
 aspects, 1–4
 scope, 5–8
 Rudall, Paula J., 36
 Russell, Scott D., 33

 sarcotesta, 409
Sasa paniculata, 150
 secondary parietal cells (SPCs), 44
 secondary parietal layer, 52
 secretory tapetum, 53–54
 seed biology, 3, 4, 314, 391, 428
 seed coat, 120, 302, 314, 346, 390–392, 398–425
 functions, 406
 structure, development, 392, 398–425
 seed development, 9, 307, 312, 314–315, 347, 375, 377, 391, 398–425
 seed dispersal, 4, 391, 409, 412–413
 advantages, 413
 mechanisms, 413–424
 seed formation, 4, 26, 42, 174, 373
 seed germination, 290, 313, 315, 342, 390, 399, 407, 412, 421, 428–429
 seed micromorphology, 397

 seed type, 4, 391, 394, 396
 embryo size, shape, position, 395
 other types, 396
 ovule type, 394
 seed viability, 312, 428
 self-fertility, 272
 self-incompatibility (SI)/intra-specific
 incompatibility, 4, 6, 14, 30–31, 34, 181, 202, 257–258
 heteromorphic systems, 258, 262–264, 271
 homomorphic systems, 258, 259–262, 264–270
 two-loci/bi-factorial system, 262
 self-incompatibility (SI), overcoming methods, 273–277
 self-pollination, 3, 16, 26, 82, 93, 175–181, 273–274
 sexual diversity, 14–16, 36
 sexual system, 2, 9, 14, 15, 17, 26
 Shivanna, K. R., 33–34
 siphonogamy, 216
 Smith, John, 29
 snail pollination/malachophily, 198–199
 specialized seed associated structures/
 appendages, 409
 sperm dimorphism, 74
 sperm cell 2, S_{ua} , 74
 sperm cell 1, S_{vn} , 72, 74
 sphingophily/moth pollination, 193–195
 sporogenous cells, 41, 43, 60
 sporophytic apomixis, 361, 367, 372
 Sporophytic Self-incompatibility System (SSI), 258–259, 261, 265–267
 Sprengel, Christian Konrad, 27
 staminal lever mechanism, 190
 starchy endosperm, 306, 308–309, 311, 313, 315
 stigma, 13, 17–18, 153, 217–226, 231, 239, 257–258, 265, 267–268, 271, 273–275
 dry, 217–222, 225, 267–268
 receptivity tests, 244–247
 semi-dry, 218
 sensitive, 224
 wet, 217–219, 222, 225, 268
 Strasburger, Eduard, 29
 stylar canal, 220–221, 273
 style, 217–221

- hollow, 218
- semi-closed, 221
- solid, 218
- suspensor, 342
 - haustorium embryo, 327, 335, 343
 - role of, 345
 - structure, 342
 - ultrastructure, 344
- Swamy, B. G. L., 31
- syncytium, 61, 295, 303, 306–307
- synergids, 29, 137, 144–149, 151–152, 217, 232–234, 359, 360, 370, 371
- syngamy, 29, 217, 234, 272, 409
- tangential cell walls, 53, 56–57, 129, 159
- tapetosomes, 54
- tapetum, 41, 44, 52–57, 60, 63, 66, 68, 75–77, 80, 129, 264
- tectum, 75, 77, 100
- tegmen, 392, 395, 399, 404, 425
- tenuinucellate ovule, 126, 128, 132, 160, 361
- tertranucellate megaspore/coenomegaspore, 133, 140–143
- testa, 392, 393, 394, 399, 404, 406, 409, 410, 421, 425
- tetrazolium, 104
- Toluidine Blue ‘O’ test, 168
- Torenia*, 149, 152, 224, 232, 237–238
- transfer cells (TCs), 151, 307, 311, 347
- trioecious sexual system, 17
- triple fusion, 4, 234, 289, 306
- tristyly, 181, 264
- tryphine, 77, 81, 83
- turn-pipe mechanism, 190, 193
- Ubisch bodies/orbicules, 54, 56, 76
- Ubisch, Gerta von, 54
- unusual pollinators, 199–202
- unique ovules, 151–153
- Utricularia*, 33, 152, 177, 218, 224, 342
- vacuum infiltration, 442–443, 447–448, 451
- vegetative cell, 66–74, 91, 227
- vegetative fertilization, 289
- vegetative reproduction, 1, 357–358, 367, 375
- viscin threads, 81–82
- Williams, Joseph H., 35
- Winged seeds, 417
- Winkler, Hans, 29
- xenia, 409
- xenogamy, 175–176
- Yakovlev & Yoffe, 341, 364
- Yucca*, 193–194
- Zalužanský, Adam, 26
- zoochory, 413, 420–423
- zygote, 4, 137, 222, 234–235, 258, 324–326