

## INDEX

- Aboriginal rights, 288–290  
Acker, Alain, 323  
African Mineworkers Union, 254  
African National Congress (ANC), 96, 105, 141–143, 270, 282  
African Uranium Alliance, 337  
Afro-Asian Conference (Bandung, 1955), 26, 79, 80  
Aghir In'Man, 321, 322  
Ahmadinejad, Mahmoud, 3  
ALARA philosophy, 44, 204, 205, 231, 278, 285, 338  
Albert, Roy, 193, 194  
Algeria, 107, 219  
Alhacen, Almoustapha, 321, 322  
Alpha particles, 40, 41, 185, 186, 189, 191, 243, 244, 263, 269  
Ambatomika mine, 222–229  
Ampamba-Gourengué, Paulin, 137  
Andrault, Jean-Claude, 235–237  
Androy region, 216, 222–229  
AngloGold, 285  
Anglo-Iranian Oil Company, 79  
Anti-apartheid movement, 29, 82, 100–102, 105, 141–151, 158–173, 270, 293  
Anti-nuclear movement, 10–12, 16, 147, 158–160, 203, 207, 208, 287–291, 319  
Apartheid, 5, 19, 22, 27, 28, 80–85, 141–146, 158, 159, 251–256, 284, 321  
Aramco, 79  
Areva, 247, 248, 322–324, 329  
Association Mounana, 245  
Atomic Bomb Casualty Commission, 185  
Atomic bombs, 6, 8, 13, 23–26, 86, 105, 172, 219, 319  
Atomic Energy Board (S.A.), 29, 30, 85–96, 106, 142, 276  
Atomic Energy Commission (U.S.), 72, 177–180, 190  
Atomic Energy Corporation, 276  
Atomic Energy Organization of Iran, 132–134  
Atoms for Peace, 24, 25, 29, 30  
Australia, 72, 73, 92, 287–290  
Basson, J. K., 195, 196, 203, 204, 210, 273  
Baulin, Jacques, 126–128  
Biafra, 121, 124  
Blair, Tony, 2  
Bongo, El Hadj Omar (Albert-Bernard), 112–116, 121–123, 128–140, 173, 320  
British Nuclear Fuels Limited, 98–102, 105, 149, 163  
Bush, George W., 1, 2, 10

- Callaghan, James, 103
- Calprods (Calcined Products), 260, 265–270
- Campaign Against Namibian Uranium Contracts, 150, 151, 156, 160, 161, 287, 307
- Campaign for Nuclear Disarmament, 160
- Canada, 22, 31, 50, 52, 58, 60, 64, 71, 76, 97, 98, 132, 150, 153, 154, 159, 209, 210, 263, 289, 290, 302, 303, 309, 310, 329, 337
- Cancer, 40–43, 177–179, 183, 189–195, 199–205, 209, 210, 245, 247, 259, 263, 273, 280, 309–319, 322
- Cartels, 56, 60, 70–79, 89, 101, 120, 128, 131, 139, 172, 173, 197, 198, 288
- Cervenka, Zdenek, 143
- Chad, 131
- Chamber of Mines, 39, 250, 254, 261–266, 269, 272–282, 285
- Chernobyl, 10, 45, 245, 287, 290, 311
- China, 6, 8, 62, 164, 210, 328, 329
- Cogéma, 69, 131, 138
- Cold War, 6, 10, 13, 16, 17, 20, 24–29, 33, 34, 42, 46, 58, 79, 85, 131, 141, 148, 169, 171, 177, 179, 180, 188, 320, 326
- Collectif des anciens travailleurs miniers de Comuf, 245
- Colonialism, 15, 16, 23–26, 43, 79–82, 85, 102, 119, 152, 177, 181, 214, 252, 296, 297, 315, 323
- Combined Development Agency, 50, 51
- Combined Development Trust, 50
- Cominak, 126, 324
- Commissariat à l'Énergie Atomique, 26, 38, 51–54, 69, 70, 90–93, 118–128, 131–135, 138, 188–192, 199–202, 213–217, 220, 223, 226–233, 241, 243, 325
- Compagnie des Mines d'Uranium de Franceville, 119–124, 131–140, 173, 202, 203, 216–220, 230–250, 323, 324
- Comprehensive Anti-Apartheid Act, 165–167
- Comurhex, 163
- Congo, 3, 4, 29, 49, 50, 117, 183, 192, 193, 216, 230, 235–237, 334–337
- Connelly, Edward, 310
- Council for Nuclear Safety, 276–284
- CRIIRAD, 245–248
- Curie, Marie, 185
- Debray, Régis, 10
- Decolonization, 16, 17, 21–23, 46, 57, 78, 102, 109, 118, 139, 150, 213, 320
- De Gaulle, Charles, 51, 107–111, 125, 126
- Delauney, Maurice, 112–114, 135
- Des Ligneris, Xavier, 230–232, 236
- Development discourse, 120, 123
- Diori, Hamani, 116, 124–132, 139, 320
- Dosimetry, 41, 188, 190, 191, 199–203, 208, 225–233, 249, 277, 283, 286
- Dropkin, Greg, 307
- Duncan, Sir Val, 99–102
- Eisenhower, Dwight, 24, 25, 30
- Elbrecht, Derek, 283
- Elf-Gabon, 118–122, 138
- Etemad, Akbar, 132–134
- European Atomic Energy Community (Euratom), 32, 164, 167, 186
- Fano, Jeremy, 37
- Ferri, Guy, 153
- Film badges, 186, 192, 193, 202, 227, 230–238, 262, 304
- Fissionable materials, 24, 31, 32
- Flag swaps, 163–169

- Foccart, Jacques, 109–112, 118–121, 124–129, 135
- Force majeure* clause, 71, 162–164, 167, 170
- Frame, Alistair, 166
- France, 6–8, 14, 15, 23, 30, 51–53, 62, 69, 107–131, 137–140, 213–219, 320–323
- Friends of Namibia, 149
- Friends of the Earth, 73, 287, 288
- Fukushima, 10, 13
- Gabon, 3, 4, 13, 15, 36, 37, 40, 44, 45, 52, 62, 64, 69, 109, 111, 112, 115–124, 128–140, 154, 172, 173, 199, 202, 210, 213–217, 220, 222, 230–250, 260, 279, 306, 319–325, 338
- Gaudet, Jacqueline, 42, 245
- Geiger counters, 15, 17, 177, 219, 223–225
- Germany, 22, 38, 135, 141, 143, 155, 164, 310
- Global warming, 10, 328
- Gold-uranium mines, 5, 85, 251, 259, 260
- Governance, 25, 80, 115, 175, 259, 260, 317, 321–328, 337, 338
- Greenpeace, 315, 322–324, 327
- Guizol, Christian, 232, 233, 238
- Gurirab, Theo-Ben, 101, 151, 152
- Guy, Shaun, 39, 40, 270–276, 284
- Hangula, Joe, 291
- Harmon, Diane, 166
- Helmy, Farouk, 104
- Hiroshima, 3, 8, 22, 49, 184, 185, 219, 290, 311, 319
- Hoabeb, Harry, 304, 309, 315–317, 324
- Holaday, Duncan, 38, 39, 179, 183, 189–195, 204
- Hueper, Wilhelm, 37, 178, 183
- Hussein, Saddam, 1–3, 116
- India, 8, 24–26, 29–34, 76, 154, 172, 178, 328–332, 337
- Indigenous rights, 288–290
- Industrial Development Corporation, 88, 89
- International Atomic Energy Agency, 2, 24–34, 39, 46, 55, 58, 61, 94, 125, 138, 143, 152, 153, 156, 165, 171, 172, 186, 188, 203–206, 210, 211, 228, 241, 259, 277–279, 291, 307, 309, 312, 315, 326, 330–332, 337
- International Commission for Radiological Protection, 44, 46, 185, 186, 189, 193, 194, 199, 203–211, 262, 273–285, 307, 338
- International Labor Organization, 186, 201, 203, 211, 232, 309, 315
- Iran, 3, 6, 31, 36, 79, 96, 116, 123, 132–134, 139–150, 155, 156, 172, 320, 330, 334
- Iraq, 1–3, 13, 31, 130, 172, 201, 330–332
- Israel, 3, 6, 29–32, 72, 104, 105, 122, 145, 149
- Japan, 13, 23, 56, 67, 71, 72, 99, 100, 102, 122, 126, 135, 148–151, 154, 155, 162–164, 167–169, 209, 328, 337
- Jug, Victor, 242, 243
- Kapere, Asser, 299, 300, 306, 314
- Katanga mines, 50, 183, 334–337
- Katjavivi, Peter, 103, 152
- Kauraisa, Charles, 300
- Kazakhstan, 3, 329
- Khan, A. Q., 171, 172, 332
- Kitazawa, Yoko, 155
- Kountché, Seyni, 116, 129–131, 140

- Lawsuits, 147, 167, 168, 222, 286, 310, 311, 323, 324  
 Lekonagua, Marcel, 4, 233–239  
 Leon Commission, 281–283, 286  
 Liberation struggle, 36, 45, 82, 103, 105, 147–151, 168, 169, 293, 301, 305, 315, 321  
 African National Congress and, 96, 105, 141–143, 270, 282  
 anti-apartheid movement and, 29, 82, 100–102, 105, 141–151, 158–173, 270, 293  
 Campaign Against Namibian Uranium Contracts and, 150, 151, 160, 161, 287  
 Friends of Namibia and, 149  
 Namibia Support Committee and, 160  
 South West Africa People's Organization and, 82, 101–105, 149–153, 160, 168, 293, 294, 299–305, 326  
 Libya, 36, 116, 130, 131, 139, 140, 172, 201, 328, 332  
 Light-water reactors, 58–61  
  
 Mabile, Jacques, 52, 53, 119  
 MacBride, Sean, 101, 103  
 Madagascar, 3, 4, 14, 15, 37, 38, 42, 45, 51, 52, 62, 64, 118, 199, 213–216, 219–229, 248–250, 260, 319, 320, 325, 326  
 Malawi, 255, 327, 328, 339  
 Mandela, Nelson, 270, 282  
 Manhattan Project, 13, 50, 193  
*Manual on Radiological Safety in Uranium and Thorium Mines and Mills*, 39, 203, 204, 228  
 Margnac mine, 190, 191  
 Market devices, 35, 36, 55–58, 65–73, 78, 81, 86, 98, 105, 106, 115, 148, 154, 169–173, 328, 330  
 Market morality, 58, 73–77  
 Market price, 50, 57, 64–77, 97, 132, 139, 157  
 Marshall Islands, 8  
 Martino, Rocco, 2  
 Maximum permissible levels, 189, 192, 197–200, 204, 208, 209, 265, 280  
 Mazel, Louis, 70, 71  
 Mba, Léon, 110–112, 119, 120, 129  
 M'Bouy-Boutzit, Edouard Alexis, 132–134  
 McGinley, F. E., 196, 197  
 Médecins du Monde, 245, 248, 325  
 Medical compensation, 244–248, 323, 327  
 Meeran, Richard, 286, 310  
 Merina, 215  
 Metcalf, Phil, 270–276, 280, 284, 303  
 Migrant workers, 5, 251, 259, 262, 273, 296  
 Mine Workers Union (S.A.), 252, 272  
 Mineworkers' Union of Namibia, 291, 300–309, 312–314  
 Minty, Abdul, 141, 153  
 Mokta, 119, 216, 232  
 Mossadegh, Mohammad, 79  
 Mounana, 37, 45, 115, 119, 121, 123, 135, 136, 202, 217, 222, 230–249  
 Mouvement de Nigériens pour la Justice, 329, 331  
 Mpandana, Kokwana, 5  
 Munro, A. H., 282  
 Mutjavikua, Cleophas, 291  
  
 Nagasaki, 8, 185, 219, 319  
 Namibia, 3–5, 13–15, 35, 36, 42–45, 64, 81, 82, 86–88, 95–105, 140, 147–172, 185, 260, 279, 287, 288, 291–317, 320, 321, 326–328, 332, 337–339  
 Namibia Support Committee, 160  
 National Union of Mineworkers, 254, 277, 282, 283, 290

- Natural resources, control of, 35,  
79–82, 100, 115–122, 134, 138–140,  
147, 151
- Navajo miners, 177–180, 200, 288,  
289
- Nazis, 143, 176, 183
- Nehru, Jawaharlal, 24, 26
- Netherlands, 92, 151, 167
- New International Economic Order,  
80, 82
- Ngavirue, Zed, 165, 168, 300
- Niger, 1–4, 13, 15, 35, 36, 62, 69, 107,  
109, 115–118, 121, 124–131,  
138–140, 154, 172, 173, 210, 213,  
214, 241–244, 247, 248, 279, 306,  
319–325, 328–331, 337, 339
- Nkrumah, Kwame, 26
- Non-Aligned Movement, 26, 80, 122,  
143
- Non-governmental organizations, 247,  
321–325, 337
- African Uranium Alliance, 337
- Aghir In'Man, 321, 322
- Association Mounana, 245
- Collectif des anciens travailleurs  
miniers de Comuf, 245
- CRIIRAD, 245–248
- Friends of the Earth, 73, 287, 288
- Sherpa, 245, 248, 325
- Non-Proliferation Treaty, 32–34, 46,  
55, 92, 94, 130, 131, 137–140, 143,  
152, 153, 171, 172, 319, 332
- North Korea, 172, 330–332
- Nuclear Assurance Corporation, 76
- Nuclear Energy Act, 276, 281, 282
- Nuclear exceptionalism, 6–16, 27,  
31–36, 57, 71, 75–78, 85, 86, 97,  
105, 128, 129, 139, 140, 203, 249,  
289, 290, 320, 328
- Nuclear Exchange Corporation  
(Nuexco), 66–68, 71–77, 101, 132,  
149, 157, 158, 163, 167, 170–173,  
197, 198, 328, 330
- Nuclear Fuels Corporation  
(NUFCOR), 68, 69, 72, 85–96,  
106, 133, 254, 260, 265–269,  
281
- Nuclearity, 3, 4, 10, 13–16, 23–29,  
33–39, 43–46, 49, 78, 85, 88, 105,  
106, 116, 118, 124, 128, 137–142,  
151, 153, 164–174, 197, 227,  
259–263, 271, 277, 282–286, 290,  
295, 317–331, 337–339
- geological, 15, 259
- geopolitical, 339
- governance and, 321–328
- medical, 15, 22, 244, 245, 259,  
302–305
- of uranium mines, 14, 33, 36–40,  
43–46, 174, 188–192, 197, 201, 203,  
211, 219–222, 228, 229, 248–250,  
262, 263, 276, 277, 330
- Nuclear Suppliers Group, 34,  
331–333
- Nuclear weapons programs and  
testing, 1, 3, 8, 26, 27, 34, 96, 104,  
145, 172, 287, 288, 330
- France's, 107, 219
- Iraq's, 1, 2
- South Africa's, 86, 96, 104, 105,  
142–145
- Nujoma, Sam, 101, 103, 293, 305
- Oil, 97, 112, 118, 121, 122, 128–131,  
134, 139, 171
- Oil crisis, 36, 67, 74, 116
- Oklo reactor, 121, 239
- Organisation for Economic  
Cooperation and Development, 61,  
64
- Organization of African Unity, 104
- Organization of Petroleum Exporting  
Countries, 70–74, 80, 116, 122,  
128–131, 139
- Oyingha, Dominique, 40, 235–240,  
243, 246

- Pakistan, 36, 130, 131, 139, 140, 172, 331, 332
- PARTIZANS, 307
- Peccia-Galletto, Jacques, 133
- Pecqueur, Michel, 138
- Pelindaba site, 143, 270
- Pickering, Arthur, 160
- Place, politics of, 85, 86, 96–105
- Plame, Valerie, 2
- Plutonium, 30, 31, 67, 192, 338
- Pompidou, Georges, 126–130
- Portugal, 29
- Pradel, Jacques, 190–192, 197, 198, 203, 204
- Prebisch, Raúl, 79
- Pretorius, Jamie, 310–312
- Price fixing, 70–75, 172
- Prix africain*, 132–135
- Public Health Service (U.S.), 38, 41, 178, 179, 183, 188–199, 204
- Qaddafi, Muammar, 116, 122, 131, 140
- Quadjovie, Massan, 202, 203
- Rabson, S. R., 262–268, 273, 274
- Racial discrimination, 26, 252–256, 296, 300
- Racialized contamination, 266–270
- Radiation and radiation exposure, 5–15
  - costs of mitigating, 196, 198, 207, 208, 211
  - data collection and, 188–196, 212, 220, 237, 238, 248, 267–270, 303
  - gamma, 41, 49, 185, 186, 190–193, 201, 202, 208, 227–232, 238, 262–265, 278
  - health effects of, 40–43, 177–185, 190–200, 204, 211, 225, 226, 235–237, 244–248, 310–315, 322, 335, 336
  - invisibility of, 44, 183–212, 219, 220, 225, 260–262, 284, 286
  - low-dose, 196–201, 205, 311, 312
  - measurement of, 189, 191, 193, 198, 201–203, 208, 250, 261–263, 283, 317, 325
  - monitoring of, 38, 183, 184, 192, 195–204, 220–231, 238–247, 261, 262, 265, 271, 273, 277, 281, 285, 288, 304, 325
  - natural, 14, 239–244, 278
  - permissible levels of, 186, 189–209, 232, 233, 265, 280
  - record keeping and, 184, 192, 199, 200, 203, 238, 250, 266–270, 274, 280, 281, 304, 310, 312, 323
  - regulation of, 173, 178, 180, 184, 186, 196–199, 209, 210, 233, 241–243, 261, 262, 266, 271–286, 321, 324, 337, 339
- Radiation Exposure Compensation Act, 180, 289
- Radioactive waste, 10, 241–243, 247, 248, 285, 337, 338
- Radon, 5, 38–45, 178–203, 208–211, 230–233, 238, 243–249, 256, 259–286, 319, 325, 335, 339
- Radon daughters, 38, 185–195, 200, 201, 204, 208, 238, 243, 244, 265, 269, 319
- Ramiha, Joseph, 225, 227
- Reagan, Ronald, 165
- Red Books, 61–65, 68, 71, 77, 139, 172, 173, 328
- Reith, Martin, 103–105
- Rice, Condoleezza, 1
- Rio Tinto Zinc (RTZ), 60–73, 82, 86–89, 96–105, 148, 151–170, 288, 290, 307, 310–313
- Ritterbush, Stephen, 154, 155
- Roberts, Alun, 151, 287
- Robinson, R. E., 95
- Rogers, Barbara, 97–100, 143, 149–153

- Rooi, Paul, 299
- Rössing mine, 5, 86–105, 147–172, 293–317  
 campaign against, 159–161, 172, 173  
 flag swaps and, 163–168  
 labor mobilization at, 297–302  
 Loss Control at, 298, 299, 316  
 Minserve and, 156–168  
 Namibian independence and, 293–295, 305–316  
 profitability of, 155–157, 163  
 reforms at, 296–298  
 security force at, 297  
 technical problems at, 155  
 theft from, 332–334  
 workers at, 294–307, 314–317, 327
- Roux, Ampie, 88, 89, 93–96, 141, 271, 272
- Russia, 8, 274, 326, 337
- Rustin, Bayard, 26
- SAFARI reactor, 90, 91, 270
- Schonland, Basil, 264, 265
- Schumann, A. W. S., 95, 96
- Sengier, Edgar, 49–51
- Sharpeville massacre, 80, 81
- Sherpa, 245, 248, 325
- Shinkolobwe mine, 183, 184, 193, 335, 336
- Shivute, Nestor, 310
- Silicosis, 37, 252, 256, 266, 267, 283, 286
- Sole, Donald, 29, 30
- Somaïr mining company, 126–128, 321–324
- Source materials, 27–34, 55
- South Africa, 5, 19, 22, 27–29, 52, 68, 80–96, 104, 105, 141–170, 173, 251–260, 264, 265, 270, 273–281, 284–286, 321  
 African Mineworkers Union, 254  
 African National Congress (ANC), 142, 143, 270, 282  
 Atomic Energy Board (AEB), 29, 30, 85–96, 106, 142, 276  
 Atomic Energy Corporation, 276  
 Chamber of Mines, 39, 250, 254, 261–266, 269, 272–282, 285  
 Council for Nuclear Safety, 276–278, 282–284  
 Government Mining Engineer (GME), 265, 266, 274, 275, 282  
 Mine Workers Union, 252, 272  
 National Union of Mineworkers, 254, 277, 282, 283, 290  
 Nuclear Energy Act, 276, 281, 282  
 Pelindaba site, 143, 270  
 Valindaba site, 85, 96, 164
- South African mines  
 conditions for black workers in, 20, 41, 211, 251–256, 259  
 data collection on radiation in, 192–196  
 monitoring at, 197, 198, 204  
 nuclearity of, 5, 14, 33, 39, 195–198, 261–264, 276, 277  
 racialized contamination in, 266–270  
 radon in, 195–198, 270–276, 284  
 regulation of, 45, 195, 261, 271–274, 278–286  
 reserves in, 62, 64, 72  
 uranium toxicity and, 263–266
- South West Africa People's Organization, 82, 101–105, 149–153, 160, 162, 168, 293, 294, 299–305, 326
- Sovereignty, 21, 32, 35, 36, 102–106, 134–140, 167, 320  
 distributed, 135–138  
 postcolonial, 115–123, 139, 140, 167  
 resource, 57, 79–82, 105, 115–122, 129, 134–140, 148, 173
- Soviet Union, 6, 8, 28, 30, 32, 34, 50, 143, 326
- Spot price, 74–77, 131, 132, 149, 157, 158, 170, 197, 328, 329

- Spot transactions, 131, 132, 158, 163  
 Steag, 93–96, 141–143  
 Sweden, 168, 210  
 Swiegers, Wotan, 302–304, 326  
 Switzerland, 8, 60, 148, 156, 163, 164, 169, 332
- Tanzania, 104, 221, 270, 328  
 Taverner, Leonard, 263–265  
 Technopolitics, 35, 36, 68, 86, 91, 143, 173  
 anti-apartheid movement and, 141–146  
 of apartheid, 253  
 of Namibian uranium, 147–170, 173  
 of provenance, 161, 166–170  
 of sovereignty, 115–118  
 of surveillance, 297–302  
 Terrorism, 331–334  
 Three Mile Island, 10, 158, 287  
 Tribalism, 214, 215  
 Tuareg rebellion, 322, 329, 331
- Udall, Stewart, 180  
 Ulenga, Ben, 301, 302  
 UN Council for Namibia, 81, 82, 100–102, 123, 147, 151–156, 165–169  
 Union Carbide, 7, 123, 136, 195  
 Unions (labor or trade), 21, 160, 161, 208, 254, 272, 273, 280–288, 299–307  
 United Kingdom, 6, 23, 32–35, 39, 51, 52, 58, 79, 92, 96–105, 148–151, 155, 156, 160–166, 263, 265, 287, 288, 299, 302, 310, 311  
 United Kingdom Atomic Energy Authority, 96–98, 105, 149  
 United States, 1–6, 15, 22–24, 28–36, 42, 49–52, 58–61, 66–74, 79, 80, 89, 90, 99, 125, 133, 143, 145, 147, 165, 166, 177–179, 189–200, 206, 249, 251, 262, 265, 271, 273, 288, 319, 332–339
- Universal Declaration of Human Rights, 23  
 UN Scientific Committee on the Effects of Atomic Radiation, 185, 186  
 UN Security Council, 81, 98, 100  
 UN Security Council Resolution 1540, 332–335  
 Uranex, 69, 72, 132, 234, 173  
 Uranium Enrichment Corporation (UCOR), 93–96, 141, 142  
 Uranium hexafluoride, 3, 36, 56, 89, 90, 93, 94, 102, 136, 163, 165, 168, 331  
 Uranium Institute, 73, 77, 133, 137, 138, 173, 326  
 Uranium Producers' Clearing Agency, 60, 69  
 Uranothorianite, 38, 216, 222, 226–229  
 Urenco, 167, 168
- Vale, Frances, 103, 104  
 Valindaba site, 85, 96, 164  
 Van Rooyen, Willem, 298  
 Verwoerd, Hendrik, 81, 90  
 Viljoen, W. P., 271, 272  
 Vorster, B. J., 91, 92
- Westinghouse, 30, 61, 72–74  
 West Rand, 274, 275  
 White, George, 74  
 Williams, L. S., 265  
 Wilson, Joseph, 2  
 Winkler, Bert, 270, 272  
 Witwatersrand Native Labor Association, 251, 267, 268  
 World Campaign against Military and Nuclear Collaboration with South Africa, 141  
 World Nuclear Fuel Market, 76, 77



World Uranium Hearing, 290, 291

Wrightmon USA, 165, 166

Yellowcake, 1–3, 13, 33–37, 56, 61,  
71–74, 86, 95–97, 118–120, 123,  
126, 130, 131, 136–140, 147–151,  
155, 156, 160–173, 201, 238–240,  
246, 287, 301, 309, 328–334

Zaire, Reinhard, 310–314, 317, 327