

# General Index

*Italic* page numbers indicate that the topic appears in an illustration or in its caption on the cited page. Authors are listed in this index only when their ideas or works are discussed; full listings of authors' works as cited in this volume may be found in the Bibliographical Index.

- Abacal maize tablets (*yupanas*), 291, 291 n.165, 293, 297
- Abalone, 110
- Abbadie, Antoine d', 28, 29
- Abdulrahamani, King, 40
- Abenaki Indians, 136  
and map of Maine coastline, 90, 91  
and map of Rangeley Lakes region, 86  
and message maps, 84
- Abip* (hamlets), 430
- Aborigines, Australian. *See* Australia, Aborigines
- Absaroka Range, 132
- Abstract designs  
Andean, 294  
on Map Rock petroglyph, 62, 64  
in Mesoamerican mapping, 183, 193, 198
- Acalan, 228
- Acalhuacan (Place of Those Who Have Canoes), 221
- Acatl (Reed) (year sign), 203, 232
- Accounting, 290
- Acculturation, stages of, 172–74, 175
- Accuracy  
of accounts of Inka mapping, 284–85  
of African maps, 36, 43, 47  
of Australian Aboriginal maps, 394, 401  
of Australian Aboriginal paintings, 364, 380  
of captions to Howling Wolf's ledger art, 118  
of Chimú surveying instruments, 284  
of Cook's determination of distance between earth and sun, 446  
of Eurasian Arctic and Subarctic maps, 339 n.34  
of Garcilaso's writings, 285  
of Goodenough's diagram of Carolinian star compass, 464  
of map of Cuzco Valley, 285  
of Mau's navigation, 474  
of Mesoamerican maps  
boundary map from Codex Xolotl, 208  
of Cuauhtinchan, 205, 207  
in Primeros memoriales, 225, 227  
of Milligan's study of Tuki's map, 508 n.67
- of Moche art, 278
- of native North American maps, 56, 137, 178  
by Bad Heart Bull, 120, 176  
on birchbark, 79–80  
van den Bosh map, 97  
Chickasaw map, 100, 101  
coastlines on Inuit and Subarctic maps, 165–66  
compiled for Inuit Land Use and Occupancy Project, 170  
by Erk-sin'-ra, 157  
by Hearne, 146 n.291  
by Howling Wolf, 118, 119  
Iglulik maps of Melville Peninsula coastline, 157  
by Inuit, 155, 156, 159  
Kangarjuatjarmiut coastline map, 157  
made for Dickinson, 129  
made for James, 129  
made for La Salle, 95  
by Meatonabee and Idotlyazee, 146 n.291  
Montagnais map, 136  
by Non-Chi-Ning-Ga, 177–78  
of St. Lawrence, Connecticut, Hudson, and Susquehanna Rivers, 77, 77 n.81  
de Soto expedition map, 95  
of Susquehanna River, 77  
by Toolemak, 157  
of Victoria Island coastline, 157  
Wahpekute map of upper Mississippi Valley, 129  
by Wetalltok, 165  
by Windigo, 151
- of Oceanic nautical cartography and navigation, 460–61
- of Pacific Basin maps  
by Cantova, 453, 454  
by E Mare, 503  
by Hone Tūhawaiki, 514, 516, 517  
by Klein, 452  
by Kotzebue, 453–54, 457  
Māori map made for Halswell, 494 n.7  
Māori map of Chatham Islands, 510  
Māori map of Lake Rotokakahi, 512
- Marshallese navigators, 485
- Marshallese stick charts, 482, 484
- Ngāti Pikiao land-claim map, 528  
by Rakiraki, 520  
*rebbelib* stick chart, 480–82  
by Ropoama te One, 525  
by Te Huruhuru, 518  
by Tuki, 508  
by Tupaia, 446, 449–50  
by Yarapat, 436, 437  
of South American and Caribbean maps, 317, 321, 325  
of Tupaia's navigation, 449
- Achernar, 306
- Achuar culture, 303
- Ackentjaekon, 75, 76
- Ac ko mok ki (the Feathers, the younger Old Swan), 132, 132 nn.251, 253, 133
- Acktis Island, 112, 113, 180
- Acolhuas, 205 n.66, 207  
and Codex Xolotl, 207, 218, 248–49, 539–40  
hill pictograph, 200
- Acosta, José de, 258 n.8
- Acrylic  
Australian Aboriginal maps in, 405, 405 n.49  
Australian Aboriginal paintings in, 359, 362, 379, 382
- Active* (ship), 501
- Adler, Bruno F., 339 n.34  
on African mapmaking, 24  
"Karty pervobytnykh narodov" (Maps of primitive peoples), 330 n.8  
and maps brought back by Weule, 37  
and North American mapmaking, 55  
and South American mapmaking, 257, 258  
and traditional cartography, 8
- Admiralty, British, 157, 158
- Aduno kine* (life of the world) sign, 26
- Aerial views, 363 n.41
- Afek, 427
- Africa, 13–48  
Austronesian traders and, 421  
dearth of studies of mapmaking, 24

- European influence on mapmaking, 33–37, 41–48  
 influence on European mapmaking, 38–41  
 intertropical  
   cosmographic maps from, 25–30  
   indigenous mapmaking, 24–48  
   solicited maps from, 33–37  
 maps of  
   by Bello, 34–35  
   by Erhardt, 41  
   reference maps, 13, 25, 38  
 rock art, 26  
 southern  
   agriculturalist rock engravings in, 17–23  
   cartographic content of rock art in, 13–23  
   hunter-gatherer rock art in, 14–17  
   rock art distribution, 18  
   use of circle in cartography, 539  
 Afterlife  
   Eurasian Arctic and Subarctic labyrinth signs and, 331  
   Kaata rites, 299  
 Agades, 36–37  
 Agassiz, Alexander, 490, 492  
 Aghil, 40  
 Agriculturalists, African, 17–23  
 Agriculture, 172–73  
   in Aitiġ cosmology, 318  
   Andean, 257  
   Bennett Stela and, 281, 282  
   and boundaries in San Andrés de Machaca, 262, 263  
   *figura mitológica* and, 277  
   *khipus* and, 291  
   Paracas polychrome mantle and, 273  
   on Qheswa *pallay*, 267  
   in rock art, 271  
 Māori, 493  
 Mesoamerican, 221, 237  
 Plano en papel de maguey, 184, 186–87, 196, 224, 252–53  
   in Warao cosmology, 313  
 Agumoimbange, 429  
 Ahagger Mountains. *See* Hoggar Mountains  
 Ahgwaanga, 407  
 Ahuriri River, 521  
 Ai (distance marker), 480, 482  
 Aikon Aushabuc, 52, 68–69  
 Ailinglapalap Island, 480, 482, 484  
 Ailingnae Island, 484  
 Ainus, 338–39  
 Aitiġ, 318  
 Aitona (edge of the universe), 313  
 Aitutaki, 475 n.81  
 Aivilingmiuts, 160–65, 179, 180  
 Ajusco, 220 n.101  
 Akapana, 280, 280 n.104  
 Akimichi, Tomoya, 463, 464  
 Aksum, 28–30  
 Alaa, 280, 281  
 Alabama Indians, 101, 102, 103, 177, 178  
 Alabama River, 103  
 Alarcón, Hernando de, 108, 172, 177  
   in basin of, 301  
   on Mapa de la Provincia de los Aruacas, 323  
   serpentine imagery for, 316, 324  
 Amazon women, 324  
 Amdrup expedition, 167  
 American Geographical Society Collection, University of Wisconsin—Milwaukee, 56, 56 n.27  
 American Museum of Natural History, New York, 160, 160 n.321, 161, 491  
 Amerindians. *See* Indians  
 Amharic, 28  
 Amma (god), 26, 27  
 Ammarell, Gene, 488, 488 n.116  
 Ammassalik Eskimos, 167–68, 169, 176  
 Ammassalik (Angmagssalik) fjord, 168  
 Amnya River, 343, 346  
 Amoltepec, 196, 210, 214, 240–41, 242–43, 248–49  
 Amphibians, 288  
 Amu (mountain sheep, three stars of Orion), 112  
 Amulets, 269–70, 299  
   building models found at Tiwanaku used as, 282  
   drawn by Guamán Poma, 287, 288  
   Moche models as, 279  
 Amur River, 339, 345  
 Amur River peoples, 171  
 Ana'a Atoll, 460  
 Anacondas  
   Amazon River basin as, 316  
   celestial, 304, 308, 311, 320  
   in Tukano origin myth, 309  
 Anadyr River, 341 n.45  
 Ancestors  
   Andean imagery regarding, 299  
   petroglyphs, 309  
*Ancestral Connections* (Howard Morphy), 371  
 Anchorages, 514, 531 n.125, 533, 534  
 Andersen, Johannes Carl, 494, 521, 521 n.102  
 Anderson, Atholl, 514 n.86, 518 n.92  
 Anderson, Jimmy, 146, 148  
 Andes Mountains  
   body-landscape metaphors, 278  
   cartography, 257–300  
   in archaeological record, 271–84  
   Moche ceramics, 278–79, 280  
   Nazca lines and Nasca ceramics, 275–78  
   Old Temple at Chavín de Huántar, 271–73  
   Paracas textiles and artifacts, 273–74, 275  
   Tiwanaku, 279–84  
   conceptions of space and geographic relations, 258–70  
   *ayllu* (linking territory to society), 260–62  
   landscape metaphors, 268–69  
   mapping rites and ephemeral maps, 269–70  
 Alaska Commercial Company, 166  
 Albany, New York, 74–77  
 Albatross, 490, 492  
 Aldan River, 343  
 Aldebaran, 465  
 Algic Indians, 52  
 Algonquian Indians  
   contact with Europeans, 66–67  
   cosmographic map by, 52, 69, 70, 175, 181 n.367  
   and design biting, 142  
   language, 99 n.165, 135  
   map of James River, 68, 68 n.64  
   and Percy's map, 69–70, 72  
   Powhatan's maps, 69–70  
   and Velasco map, 70 n.76  
 Algonquin Indians, 69, 70 n.76, 89  
 Alignment, burial, 497, 497 n.22  
 Alkire, William H., 463, 464, 465, 466, 467, 470 n.74  
 Allalinga, 407  
 Allegheny Mountains, 70, 72  
 Allegheny River, 70, 72, 88  
 Alliance belts. *See* Wampum, belts  
 Alligators, 305  
 Almanacs, 229–32  
 Almudj, 357  
 Alphabets  
   Inka lack of, 258 n.8  
   Latin, 199  
   and Mesoamerican mapping, 183, 240, 242–44  
   of Atlatlahuacan, Morelos, 242, 243  
   Don Miguel Damian's property map, 226  
   Humboldt Fragment 2, 222  
   Lienzo of Petlacala, 246, 247  
   Lienzo of Zacatepec 2, 213  
   Mapa de Santa Cruz, 244  
   Plano en papel de maguey, 187  
   of Tetlitzaca, 246  
   of Zolipa, Veracruz, 243  
   on map of Bamum, 43 n.82  
   Maya, 209, 210  
   *mbima*, 42  
   *mfêmfê*, pl.3  
 α Centauri, 276, 277  
 Altair  
   and Arab star compass, 488  
   and Carolinian navigation, 464, 465, 474, 475, 488, 489  
   and *etak*, 471  
   and Hawaiian navigation gourd, 486–87  
 Altamaha River, 118, 119  
 Altars, 288  
*Altepetl* (autonomous community-kingdoms), 204, 205, 207  
 Alvarado, Francisco de, 187, 187 n.12  
 Amáru, 317  
*Amate* paper. *See* *Amatl* paper  
*Amatl* paper, 187, 196, 218, 222, 224, 248–49, 250–51, 252–53, 254–55, pl.9  
 Amazonia, 305, 309, 315  
 Amazon River, 257, 280, 317  
   destruction of native society and tradition

- radial and parallel structure, 262–65, 266
- role of sacred *huacas* and *parajes*, 265–68, 269
- Inka, 284–97, 298–99
- ceque* system, 285–88, 289
- kipus*, 289–94
- in native manuscripts, 294–97, 298–99
- road system, 288–89, 290
- rock art, 270–71
- ceramics and textiles as maps in, 10
- cosmography
- Bennett Stela and, 281–82
- Nasca, 276, 277
- Taypikala and, 279–80
- Tello Obelisk and, 272–73
- cosmology, 274, 275
- coverage of, 8 n.35
- cultural chronology, 259
- maps of
- Chuwa Chuwa, 263
- Cuzco Valley, 285
- generated from Huarochirí Manuscript, 266
- by Guamán Poma, 262–63, 264, 295–96, 298–99
- Inka empire, 295–96, 298–99
- kipus* as, 293–94
- Lake Titicaca reed beds, 263–64, 264 n.27, 265
- Q'ero *pallay*, 266–67, 267 n.38, 268, 297
- Qheswa *pallay*, 267–68, 269, 297
- reference, 258
- San Andrés de Machaca, 263
- timekeeping using shadows in, 266–67 n.37
- Andía y Varela, José, 458, 497 n.19
- Andrew (Chippewa Indian), 149, 152–53, 177, 178
- Andrews, Sona, 56 n.27
- Angas Downs cattle station, 408
- Anglican Church of Canada Archives, Toronto, 160 n.321
- Angmagssalik fjord. *See* Ammassalik fjord
- Angola, Kongo cosmography, 27
- Animals
- in Andean cartography, 299
- Bolivian landholding amulet, 269
- Moche art, 278
- Nazca geoglyphs, 275
- Paracas textiles, 273
- Quechuas equate with constellations, 260 n.14
- Sayhuite Stone, 288
- Tello Obelisk, 272, 273
- in Australian Aboriginal Dreamings, 360
- on Australian Aboriginal maps, 391
- on Australian Aboriginal paintings, 363–64 n.43, 373, 374
- on Chukchi decorated paddle, 345, 347
- in Eurasian Arctic and Subarctic cosmography, 337, 346
- on Eurasian Arctic and Subarctic maps, 342, 343, 344, 346
- in Eurasian Arctic and Subarctic rock art, 331
- Mesoamerican maps on skins of, 194, 195–96, 248–49, 252–53
- Mesoamerican sacrifice of, 232
- migration of, 135
- in native North American cosmography, 139
- on native North American maps, 73, 179
- cartographic pictographs, 79, 80, 81
- late twentieth-century Inuit art, 169
- Map Rock petroglyph, 65
- message maps, 84
- Purgatoire River petroglyph, 66
- by Teseuke, 162, 164
- native North American maps on skins of, 51, 56, 90–94, 114, 135–39, 140, 141, pl.6
- in Pacific Basin cosmography, 440
- political boundaries stylized as on European maps, 285 n.130
- in South American and Caribbean constellations, 304–5
- on South American and Caribbean maps, 303, 308–9
- in southern African *lukala* maps, 32
- in southern African rock art, 14, 15, 16, 18, 19
- skins (*see* skins, animal)
- Anko, 174
- Anmatyerre Country, Australia, 399–401, 402
- Annie (Beaver Indian), 138
- Annotation. *See* Text
- Annual Reports of the Bureau of American Ethnology*, 173
- Another America* (Mark Warhus), 56
- Antares, 463, 471
- Anthropology
- Carib, 324
- and interest in native North American mapping, 55
- and representation of native ideas, 321
- Anthropomorphs
- in Arawakan Wakuénai cosmology, 317
- in Eurasian Arctic and Subarctic cosmography, 333, 337
- on Eurasian Arctic and Subarctic maps
- on blazed trees, 345
- on Map Rock petroglyph, 62, 64
- at Old Temple at Chavín de Huántar, 272
- Antisuyu, 287–88, 299
- Antlers
- maps on, 114–15, 541
- on shaman headdresses, 334
- Antonov, Vasilii, 340
- Anúúfa, 468
- Aotea. *See* Great Barrier Island
- Aotearoa. *See* New Zealand
- Apache Indians, 109 n.193, 129, 171
- Apalachicola River, 96, 100 n.167
- Apano Huaya (the Passing of Water), 236
- Aparima/Jacob's River Inlet, 516
- Apato'a*, 449–50, 450 n.23
- Apato'erau*, 449–50, 450 n.23
- Apelech ceremonial group, 377, 377 n.84, 378
- Apinayé, 311
- Apoala Valley, 215–18
- Apostles, 337
- Appalachian Mountains, 68, 98–99, 106
- Aprons, 333
- Aqoldi (Asosa), 47
- Arabs, 488, 489
- Arahura River, 523, 524
- Arapaho Indians, 118, 132
- Arawaks, 301
- and “Bericht” of Jephtha, 322–23
- defined, 303 n.4
- and landmarks, 303
- and Mapa de la Provincias de los Aruacas, 323–24, 325
- and provision of information to Europeans, 302 n.2
- Wakuénai cosmology, 316–17
- Archaeoastronomy, 181–82
- Archaeology, 55, 271–84
- Archipelago, defined, 260 n.12
- Architecture. *See also* Buildings
- Andean, 282
- and Batammaliba cosmography, 26–27
- on European city plans, 225
- Mesoamerican
- and cosmography, 197, 234 n.140
- on Mapa de Santa Cruz, pl.11
- symbols for, 198, 201
- and South American and Caribbean cartography, 301
- and South American and Caribbean cosmology, 311, 318
- Archive of North American Maps on CD-ROM*, 56 n.27
- Arcs
- on Australian Aboriginal paintings, 363 n.41
- on map of South American and Caribbean vision quest, 310
- in *Pankalangu Ceremonies at Yamunturanga*, pl.19
- in Warao cosmology, 313
- Arctic
- Eurasian, 329–49
- cosmographical and celestial maps, 332–37, 338, 339
- evidence of mapping in prehistory, 330–32, 333
- reference map, 328
- terrestrial mapmaking and maps, 338–48, 345, 346, 349
- North American, 154–70
- ephemeral maps, 159
- Euro-American perceptions, 157–59
- maps in late twentieth-century Inuit art and social policy, 169–70
- maps on ivory and wood, 166–68, 169
- maps on paper, 159–66
- Arctic Bay, 169–70
- Arctic Dreams* (Barry Lopez), 56
- Arcturus, 460, 460 n.48
- Arena Blanca, 274, 275
- Areytos* (sacred chants), 317

- Argentina, 8 n.35, 541  
 Argillite, 493  
 Ariki (chief), 495, 498, 500, 501, 503, 503 n.45, 504, 508 n.63, 513, 514, 516, 518 n.92, 525, 528, 530, 531  
 Arizona  
   Canyon de Chelly Navajo star ceilings, 65–66  
   petroglyph from, 61–62, 63  
 Arkansas Indians. *See* Quapaw Indians  
 Arkansas Post, 117, *pl.*6  
 Arkansas River, 129  
   on Chickasaw map, 100  
   on Gero-Schunu-Wy-Ha's map, 132, 134, 180  
   on Miguel's map, 126  
 Ark of the Covenant, 30  
 Armbands, 431  
 Armstrong, William, 132, 134  
 Arnhem Bay, 403, 404, 405  
 Arnhem Land, Australia, 357, 359, 364, 366, 367, 371, 372  
   Aboriginal iconographic styles from, 375–76  
   x-ray image of turtle from, *pl.*15  
 Arnold, Benedict, 84, 180 n.362  
 Arrapooash, 53  
 Arrows  
   in "fight and flight" scene, 538  
   on map of Tenochtitlan in Codex Mendoza, 193  
   on Sayhuite Stone, 288  
 Arrowsmith, John, 521 n. 102  
 Arrowsmith Mountains, 524  
 Arsen'ev, V. K., 340  
 Art. *See also* Painting  
   Australian Aboriginal, 539  
   and Inuit mapping, 169–70  
   Malangan funerary, 438–39 n.47  
   Moche, 278  
   parietal (*see* Rock art)  
   Plains Indian, 133  
 Artifacts  
   Andean, 265, 273–74, 275  
   Australian Aboriginal  
     range of, 354–59  
     secret-sacred, 359, 388, 391–92, 410–11  
   Eurasian Arctic and Subarctic, 330  
   and mapping of celestial entities, 304  
   Mesoamerican, 183 n.4  
 Artistic maps, Melanesian, 438–40, 441, *pl.* 23  
 Artists, Mesoamerican, 197  
 "The Art of Map-Making among the Ancient Mexicans" (Eulalia Guzmán), 184, 184 n.6  
 Aruacas. *See* Arawaks  
 Ashburton (Hakatere) River  
   on von Haast's map, 523, 524  
   Māori map of, 535  
   reference map, 524  
 Ashuanipi (Ashwanipi) River, 136  
 Asia, 171. *See also* Eurasia, Arctic and Subarctic  
 Asosa. *See* Aqoldi  
 Assiniboine Indians, 129  
 Asterisms, 297  
 Astrology, 238, 239, 240, 290  
 Astronomy  
   Australian Aboriginal, 368–71  
   *ceque* system and, 286, 286 n.133, 287  
   *khipus* and, 290, 291, 293  
   Nazca geoglyphs and, 276  
   Old Temple at Chavín de Huántar and, 272, 272 n.59  
   Santa Cruz Pachacuti's drawing and, 295, 297  
   South American and Caribbean, 305 n.8, 317  
 Athapaskan Indians, 109 n.193, 149  
   clothing compared with Siberians', 171  
   cosmographical design on drumhead, 139, 141  
   language, 135, 149  
   shamanistic beliefs and practices, 171  
 Atikwabe'o, 142  
 Atkinson-O'Fallon peace expedition, 132  
 Ati (bird), 199  
 Atlantic Ocean, 91, 317, 324  
 L'atlas Moreau de Saint Méry, 102, 104  
 Atlarlahuacan, Morelos, 241, 242, 243  
 Atoija, stone shrine of, 270 n.48  
 Atoloi (witch mountain on an island), 112  
 Atoq (fox), 279  
 Atototl (Water Bird), 198, 199  
 Attendant of the Sun, 273  
 Attikamek Indians, 142 n.280  
 Atua (god), 496  
 Auchagah, 145  
 Auckland, 503  
 Auckland Isthmus, 530  
 Auckland Peninsula, 501, 508, 533  
 Auld, William, 165, 166, 166 nn.326, 327  
 Australia  
   Aborigines, 353–416  
     artistic conventions, 389–90  
     and astronomy, 362  
     circles in art of, 539  
     and classical traditions, 353–54  
     cosmological and astronomical depictions, 368–71  
     depiction of time in space, 371  
     distinctions between maps and icons, 387, 405  
   Dreamings, 539, 541  
     and aerial and subterranean views, 363 n.41  
     Bird Woman and Two Men, 394  
     and cartography, 5  
     and conventions of painting, 368  
     and cult lodges, 376, 376 n.72  
     explained, 360–61, 361 n.38  
     Honey Ant Dreaming, 362  
     on maps, 392  
     on Mowaljarlai's map of Australia, 415  
     on paintings from Western Desert, 379, 380, 381, 383  
     Red Kangaroo Dreaming, 405, 408  
     and rock arrangements, 411  
     in rock art, 374–75  
     and *Sacred Places at Milmindjarr'*, 372–73  
     *Squid and Turtle Dreamings*, 371, 372  
     Tjapaltjarris and, 399, 400, 401, 402  
     in Western Desert paintings, 388  
   European influence on, 353 n.2  
   and icons, 362–64, 365  
   identifying maps, 4  
   importance of designs to, 366  
   map media, 541  
   maps, 387–416  
     of Anmatyerre Country, 399–401, 402  
     of Arnhem Bay, 403, 404, 405  
     of Australia, 394–95, 396, 413–14, 415  
     of clan estates, 395, 397, 398, 399, 400, 401  
     European influence on, 389  
     of Goromuru River, 402–3, *pl.*21  
     of Gove Peninsula, 397–98  
     identifying, 4  
     in land claims era, 405, 408  
     of Mabuiag Island and reefs, 399  
     major collections, 387–99, 393, 400, 401, 415–16  
     Melanesian influence on, 354 n.4  
     by Mowaljarlai, 413–14, 415  
     mud maps and sand drawings, 405–8  
     of Murganella floodplain, 397  
     of Murrinh-patha countryside, 403–5, 407  
     of Napperby Station area, 401  
     Nicholson River land claim and, 405, 408  
     and politics and law, 413–14  
     purposes of, 365  
     reference, 352, 375, 379, 396, 403, 405  
     smaller scholarly collections, 399–405  
     of Yalangbara, 413, 414  
     and meaning of "map," 364  
     on Mowaljarlai's map, 415  
     painting, 364 n.43, 366–83  
     conventions, 367–68  
     indeterminacy of interpretations, 373  
     media used, 354–55, 359, 366–67  
     from northeast Arnhem Land, 375–76  
     rock art, 354, 356–57, 374–75  
     from western Cape York Peninsula, 377–79  
     from Western Desert, 379–84, 388–89  
   plans, 408–13  
   range of artifacts from, 354–59  
   "sand stories," 365 n.54  
   secret-sacred objects, 359  
   songlines, 360, 361, 384  
   and spatial categories, 361–62  
   surviving traditional cartography, 355–56  
   and technology, 354 n.4  
   toas, 1, 10  
   and topographic representations, 352–86  
   traditional cartography, 352–416  
   settlement, 423  
   Tupaia pilots *Endeavour* around, 449

- Australian Museum, Sydney, 492  
 Austral Islands, 450, 461  
 Austronesian languages, 421, 434  
 Austronesians  
   and expansion, 420, 421, 487  
   use of stars in navigation, 488  
 Aveni, Anthony F., 182 n.375, 271–72, 275 n.76  
 Avrorin, V. A., 336, 339  
 Awarua. *See* Bluff Harbor  
 Awarua River, 518 n.92  
 Awash River, 35  
 Awia. *See* Lake Hawea  
 Awī (rattlesnake) (constellation), 112  
 Awiyuk (gopher snake) (constellation), 112  
 Axatu (Santa Catalina Island), 112  
 Axes  
   on Andean maps, 267  
   on Carolinian star compasses, 462, 463, 464  
   in Mesoamerican cosmography, 201, 203, 203 n.56, 229  
   on map in Codex Fejérváry-Mayer, 230  
   stela at Izapa, 234  
   in native North American cosmography, 53, 139, 176  
   in South American and Caribbean cosmology, 306, 314  
   on Windigo's map, 149  
 Axis mundi, 538  
   on Evenk shaman's costume, 333, 334  
   in Mesoamerican cosmography, 187  
   on Lord Pacal's sarcophagus lid, 234–35, 237  
   Maya lord as in tomb at Río Azul, 234  
   on stela at Izapa, 185  
   on Tizoc stone, 238, 255  
   on native North American drumheads, 139  
   at Old Temple at Chavín de Huántar, 272  
   in Warao cosmology, 310–11  
 Ayacucho basin, 264  
 Ayllu River, 268  
 Ayllus, 258, 260–62, 266, 297  
   in *ceque* system, 287  
   in Cuzco Valley, 286  
   in drawing of house of Manco Capac, 295  
   on *khipus*, 291, 293, 293  
   in Lupaqa, 280  
   and map of Lambayeque River, 262, 264  
   membership in, 299  
   on Nasca pottery, 277  
   Nazca geoglyphs and, 277  
   in Pacariqtambo, 270  
 Paracas, 273, 274  
 Piedra Cansada and, 288  
   on Qheswa *pallay*, 269  
   on Quinoa pottery, 264  
   in San Andrés de Machaca, 262, 263, 299  
 Aymaras  
   and body-landscape metaphors, 268–69  
   conceptions of space, 280, 281  
   language, 283 n.119  
   mapping rites, 269, 270 n.48  
   and maps regarding reed beds, 263–64, 264 n.27, 265  
 Azcapotzalco region, 252–53  
 Azimuths, 463, 464, 465  
 Aztecs. *See also* Culhua-Mexicas  
   Calendar Stone, 238, 254–55  
   and Codex Fejérváry-Mayer, 229  
   control of Mesoamerica, 183  
   cosmography, 230, 232  
   hill pictographs, 199–200, 200, 200 n.53  
   and Humboldt Fragment 2, 222, 222–23  
   and *lienzos*, 195 n.37  
   and Mapa circular de Cuauhquechollan, 539  
   and Mapa de Sigüenza, 219, 539  
   maps by  
     celestial maps, 238  
     changes in, 244  
     European influence on, 212 n.83  
     Mapa circular de Cuauhquechollan, 210, 212  
     military maps, 225–28, 252–53  
     property maps, 187, 225  
     simplicity of, 193  
     survival, 208  
     of Tenochtitlan, 192–93, 193–94  
     terrestrial maps, 221  
     priestly caste, 229  
     and Primeros memoriales, 225  
     religion explained in Codex Ríos, 236  
     and Toxcatl festival, 232 n.132  
     and Xicalango, 228 n.123  
 Aztec Triple Alliance, 205  
 Aztlan, 218, 219, 249, 539  
 Babylonian maps, 539  
 Back Lowlands, 146  
 Báculo (god with staffs), 284 n.122  
 Bad Heart Bull, Amos, 119–21, 122, 123, 176, 179  
 Baffin Island  
   Iglulik sketch of ships along coastline of, 157  
   Illigliak's map of, 159, 160, 164–65  
 Baffin Island Inuit, 170, 170 n.336  
 Bahacecha (Vacecha) Indians, 108–9  
 Bahamas, 319–20  
 Bainbrigge, Captain, 85  
 Baja California, pictograph at Rancho El Tajo, 61  
 Bakongo cosmography, 27  
 Bakuba, 36  
 Balfour, Graham, 491  
 Balfour, Henry, 491  
 Ball courts, 227  
 Balley (ship), 513, 513 n.80  
 Balygychen River, 345  
 Bamum, kingdom of  
   and mapmaking, 41–45  
   map of, 42–44, *pl.*3  
 Banana fibers, 462, 463  
 Banapana Maymuru. *See* Maymuru, Banapana  
 Bandaiyan: The Body of Australia, Corpus Australis (David Mowaljarlai), 413–14, 415  
 Bandera, Damián de la, 285  
 Bands  
   on Aitij *duho*, 318  
   on Andean maps  
   Bennett Stela, 281  
   Moche house models, 279, 280  
   Qheswa *pallay*, 267, 269  
   on Quinoa pottery, 264–65, 266  
   in Mesoamerican cosmography, 229  
   on Lord Pacal's sarcophagus lid, 237  
   on stela at Izapa, 255  
   on Tizoc stone, 238  
   on Mesoamerican maps  
   of Apoala Valley, 216  
   of Atlatlahuacan, Morelos, 242  
   in Codex Borgia, *pl.*10  
   on Humboldt Fragment 2, 222  
   on Plano en papel de maguey, 224  
   of Tenochtitlan, 193, 193 n.33, 235–36  
 Baniwa, map of ideal village, 319, 320  
 Banks, Joseph, 446, 458  
   and Tupaia's chart, 448, 449, 450, 451  
 Banks Peninsula, 514  
 Bantu societies, 20, 22  
 Barak, William, 409–10, 411  
 Barasanas  
   cartography, 320  
   celestial mapping, 5  
   constellations, 306, 307  
   cosmology, 316  
   and shamanistic rituals, 6  
 Bardon, Geoff, 401  
 Barés, 317  
 Bark. *See also* Birchbark; Trees  
   Australian Aboriginal paintings on, 354, 355, 359, 364, 364 n.47, 366, 367, 370, 372, 377–79, 379 n.88, *pl.*18  
   biting of, 142–43  
   lack of in Great Basin, 113  
   maps on, 541  
   Australian Aboriginal, 403, 404, 405, 405 n.49  
   Eurasian Arctic and Subarctic, 340–44, 345, 346  
   native North American, 95, 135–39, 140, 141, 175–76  
 Barnes, Monica, 277 n.93  
 Barnicoat, John Wallis, 520, 521 n. 101, 534  
 Barracuda (spirit), 404  
 Barreto, 316  
 Barrows, John, 137  
 Barth, Heinrich, 35  
 Basalt, 62, 64  
 Baskets  
   made by Murik women, 440 n.48  
   and South American and Caribbean cartography, 301  
   and South American and Caribbean cosmology, 303–4, 317–18, 319  
 Bas-reliefs, 541  
   Ammassalik wooden maps, 167–68, 176  
   Mesoamerican, 197, 234–35, 237, 254–55

- Bassett, Thomas, 5  
 Batammaliba, 26–27  
 Bathurst Hills, 146  
 Battle Creek, 115  
 Battles. *See also* War  
   in Mesoamerican landscape painting, 256  
   on Mesoamerican maps, 237–38, 251  
   on native North American maps, 179  
 Batz, Alexandre de, 101–3, 104  
 Baumhoff, Martin A., 61  
 Bayini, 413, 414  
 Bay of Plenty, 501 n.41, 512  
   on Korra-korra's map, 501  
   on Ngāti Pikiao map, 529  
   on Te Arawa Māori map, 512  
 Bayougoula Indians, 103, 105, 105 n.175  
 Bayous, 101  
 Bays  
   on Māori maps, 517, 531 n.125  
   Māori toponyms for, 493  
   on map of Yalangbara, 413  
   on native North American maps, 100  
   n.167, 149, 151, 178  
 Beaches, 112, 514  
 Beads. *See also* Wampum  
   on *lukasa* memory boards, 32, 48, *pl.2*  
   as money in Belau, 489  
 Beams, 485 n.105  
 Beans  
   map of Caribbean using, 319–20  
   in Mesoamerican diet, 183  
 Bear grease, 84, 85, 86, 87, 88. *See also*  
   Grease  
 Bear hunting, 344–45, 347  
 Bear Lodge Butte. *See* Devils Tower  
 Bear River, 339  
 Bears  
   in Eurasian Arctic and Subarctic cosmo-  
   graphy, 339  
   on Eurasian Arctic and Subarctic maps,  
   344, 349  
   in native North American cartography,  
   80, 86, 95, 162  
 Bear Sea, 339  
 Beartooth Mountains, 132  
 Beattie, H., 518, 521, 521 n.102  
 Beaver Indians  
   cosmographical design on drumhead,  
   139, 141  
   dream map, 56, 138–39  
 Beavers, 151–52, 152 n.296, 156, 179, 180  
 “Beavers” (monsters), 520, 531, 534  
 Beechey, Frederick William, 159  
 Beke, Charles, 35, 41  
 Bela Shangul (Beni Shangul), 47  
 Belau (Palau)  
   on Cantova's chart of Caroline Islands,  
   454  
   glass money used, 489  
   on Klein's map of Caroline Islands, 452  
   on modern map of Caroline Islands, 455  
   settlement, 420, 421  
 Belcher Islands, 155, 164, 165  
 Belize, 183  
 Bell, Robert, 149, 151, 154  
 Belle Fourche River, 120  
 Bello, Mohammed, 34–35  
 Bellot, Joseph René, 157  
 Belts, wampum, 81, 88–90, 94, 176  
 Belyea, Barbara, 56  
 Benchlands, 179  
 Benin, 26–27  
 Beni Shangul. *See* Bela Shangul  
 Bennett, Wendell C., 320  
 Bennett Stela, 280–82, 297, 299  
 Benue River, 40–41  
 Beothuk Indians, 73 n.79  
 Berger, Uta, 184 n.6  
 “Bericht” of Jephtha, 322–23  
 Bering Sea, 171, 329  
 Bering Strait Eskimos, 159  
 Bering Strait Inuit, 167  
 Berndt, Catherine Helen, 392–99  
 Berndt, Ronald Murray  
   Australian Aboriginal maps collected by,  
   368–69, 390, 390 n.12, 392–99,  
   412  
   and Australian Aboriginal plans, 410–11  
   and map of Yalangbara, 413, 414  
 Berndt Collection, Berndt Museum of  
   Anthropology, University of West-  
   ern Australia, 392–99, 400, 401  
 Bernice P. Bishop Museum, Honolulu, 491  
 Bernisches Historisches Museum, Berne, 490  
 Bernus, Edmond, 38–40, 41  
 Berries, 179, 310  
 Beschefer, Thierry, 142 n.282  
 Best, Elsdon, 497, 530  
 β Aquilae, 464, 465, 471, 474  
 β Aurigae (star), 121  
 β Centauri, 276, 277  
 Betanzos, Juan de, 258, 284, 285  
 Beverley, Robert, 96–97, 98  
 Biá, 307–8 n.18, *pl.13*  
 Biblioteca del Palacio Real, Madrid, 225  
   n.116  
 Bibliothèque Nationale, Paris, 205 n.66,  
   218 n.98  
 Big Black Meteoric Star Bundle, 54,  
   123–25, *pl.7*  
 Big Dipper, 486. *See also* Ursa Major  
 Big Sioux River, 127  
 Bikini Island, 484  
 Bilateral symmetry, 273  
 Billy, 394  
 Billy and Maning, 368–69  
 Binop (secondary forests), 430  
 Biodiversity Support Program, 540  
 Biology, 531, 531 n.125  
 Birchbark. *See also* Bark  
   biting of, 142–43  
   maps on, 541  
   Eurasian Arctic and Subarctic, 342–43,  
   344, 345, 348  
   native North American, 51, 79–86,  
   83–84, 142, 171, 172, 173, 180,  
   343  
 Birds  
   in Andean cartography  
   on Bennett Stela, 281  
   on Sayhuite Stone, 288  
   on Tello Obelisk, 272, 273  
   in Barasana cosmology, 316  
   in Carolinian navigation, 466, 471–72  
   on Chukchi decorated paddle, 347  
   on Evenk shaman's costume, 333  
   and finding Rapa Nui, 461  
   indicate distance in Melanesian song  
   maps, 435  
   in interpretations of Australian Aboriginal  
   paintings, 373, 374  
   on Māori map of South Island, 514  
   in Mesoamerican cosmography, 232  
   n.132, 237  
   in Mesoamerican hieroglyphs, 201  
   on Mesoamerican maps  
   of Cuauhtinchan, 205, 206  
   Lienzo of Zacatepec 1, 209  
   Mapa de Sigüenza, 219  
   of Tenochtitlan, 193, 194, 195  
   in native North American cartography  
   pictographs, 80, 81  
   on Writing Rock, 63 n.46  
   in native North American cosmography,  
   95  
   and Oceanic navigation, 443, 460  
   in Purgatoire River petroglyph, 63, 66  
   skins of, 125  
 Birdsell, Joseph B., 389, 389 n.11, 416  
 Bird's-eye perspectives, 264 n.27  
 Bird Woman Dreaming, 394  
 al-Bitrūnī, 29  
 Bismarck Archipelago, 419, 420  
 Bison, 128, 171  
   in Howling Wolf's ledger art, 118, 120,  
   179  
   on Sitting Rabbit's map, 124, 179  
 Biting, design, 142–43  
 Bittmann Simons, Bente, 191  
 Black, P. G., 492  
 Black Beaver River, 142  
 Blackfoot Indians  
   Ac ko mok ki's maps, 132, 132 nn.251,  
   253, 133  
   boundaries on maps by, 178  
   Ki oo cus's map, 129–32, 161, 179  
   and medicine wheels, 54  
 Blackfoot River, 62  
 Black Hills, South Dakota  
   Bad Heart Bull's map of, 120–21, 123,  
   176, 179  
   Oglala Sioux map of, 55  
 Black Hills Peace Talks, 119, 122  
 Black Mountains, 63  
 Blackwood, Beatrice Mary, 348 n.68  
 Blake, Joseph, 99 n.163  
 Blanca Peak, 110  
 Blazed trees  
   Eurasian Arctic and Subarctic, 342, 343,  
   345, 348  
   native North American, 87–88, 171, 176,  
   180  
 Bleek, W. H. I., 23  
 Bleeker, Captain, 94  
 Bleek family, 13

- Blessing, Fred K., 180–81 n.365  
 Blier, Suzanne Preston, 26–27  
 Blish, Helen, 119 n.225, 120  
 Blocks, 273  
 Blood  
   on Andean cosmological gourd, 274  
   on cosmographical map in Codex Fejérváry-Mayer, 236  
   Eurasian Arctic and Subarctic maps in, 341  
   on map in *Primeros memoriales*, 227  
   in Mesoamerican cosmography, 232  
 Bloodletting, 227, 230  
 Bloody Jack. *See* Hone Tūhawaiki  
 Blue Nile River. *See* Nile River  
 Blue Ridge Mountains, 99 n.162  
 Bluff Harbor (Awarua), 517, 518  
 Bluffs, 118  
 Boa (constellation), 304, 305  
 Boards  
   Australian Aboriginal paintings on, 364, 366, 379  
   maps on, 541  
     Chukchi, 341–42, 343  
     native North American, 176  
     from Poquen Cancha, 265–66  
     Siberian, 330, 340–41  
 Boas, Franz, 9, 160, 160 n.321, 161, 170, 170 n.336  
 Boats  
   on Chukchi decorated paddle, 345, 347  
   on Cortés's map, 195  
   on Eurasian Arctic and Subarctic maps  
     on birchbark, 343, 344  
     on blazed trees, 345  
     on bleached sealskin, 349  
     Chukchi wooden board map, 341  
     Mansi wooden board maps, 342  
   Macassan, 411–12, 413  
   on map of Yalangbara, 413  
   *pinisi*, 488  
 Boca del Dragos, 324  
 Boca del Serpe, 324  
 Body, human  
   Australia envisioned as, 415  
   depicted on Melanesian shields, 431, 432, 433  
 Body art. *See also* Scarification; Tattoos  
   Australian Aboriginal, 379, 388, 391  
   as maps, 25  
   and South American and Caribbean cosmology, 303–4, 317–18  
   Tabwa, 30, 31  
   Ye'cuana, 319  
 "The Body of Australia" (David Mowaljar-lai), 413–14, 415  
 Bogaert, Harmen Meyndertsz van den, 68  
 Boigu people, 428  
 Bolon, Hypolite, 90 n.132  
 Bonampak, 237–38, 254–55  
 Bone  
   in Melanesian mapping, 429, 430  
   native North American maps on, 51, 114–15  
   Neo-Eskimo tradition of engraving, 171  
   Bonefish. *See* Milkfish  
   Bonnemaison, Joël, 427 n.14  
   Books, 241  
   Boomerangs, 357, 384  
   Boone, Elizabeth Hill, 56 n.29, 194 n.34  
   Boorstin, Daniel, 10  
   *Boot* (knot or node). *See* *Bōt*  
   Boothia Peninsula, 146  
   Borders, 390  
   Bores, 408  
   Boscawen Island, 450, 451  
   Bosh, Lawrence van den, 95–96 n.156, 97, 99 n.163  
   Boston, 52, 68, 69  
   *Bōt* (knot or node), 477, 478, 479, 480  
 Boundaries  
   on Andean maps  
     of Cuzco Valley, 286  
     by Guamán Poma, 262–63, 264  
     Paracas polychrome mantle, 274  
     *Q'ero pally*, 266, 267  
     regarding Lake Titicaca reed beds, 263–64  
     of San Andrés de Machaca, 262, 263  
     Sayhuite Stone, 288  
     between *suylus*, 289  
   on Australian Aboriginal maps, 401  
   on European maps, 285 n.130  
   Indians and, 106, 106 n.181  
   on Māori maps, 531 n.125  
     land-claim maps, 525, 529, 530  
     by Ngātai, 534  
     by Ropoama te One, 535  
     of Rotorua lakes, 536  
   Mesoamerican  
     establishing and redrawing of, 220–21  
     in land-tenure systems, 213  
     of *parajes*, 267  
   on Mesoamerican maps, 193  
     of Amoltepec, 214, 241  
     of Atlatlahuacan, Morelos, 241, 242, 243  
     cartographic histories, 204  
     of Cuauhtinchan, 205, 206  
     in *Historia tolteca-chichimeca*, 220, 246–47  
     *Lienzo of Coixtlahuaca 2*, 251  
     *Lienzo of Petlacala*, 246–47, *pl.12*  
     *Lienzo of Tulancingo 1*, 251  
     of Maní, 209, 210  
     of Teozacoalco, 212  
   on native North American maps, 105–6, 107, 179  
     Algonquian cosmography, 69  
     by Blackfeet, 178  
     cadastral map of New Hampshire, 91 n.133  
     Catawba map, 101  
     by Chippewas, 179  
     by Inuit, 178  
     by Jimmy Anderson and Curly Head, 146, 148  
     by Ki oo Cus, 130  
     by Meatonabee and Idotlyazee, 146  
     of northern interior, 149  
     Pokanoket land to be sold, 179  
     by Subarctic Indians, 178  
 Boundary maps  
   Mesoamerican, 241, 242  
   of Amoltepec, 248–49  
   circular, 210  
   Codex Meixueiro, 250–51  
   in Codex Xolotl, 206–7, 208  
   *Lienzos of Zacatepec*, 208, 248–49  
   *Mapa de Cuauhtinchan 2*, 222  
   of Santa María Nativitas, 252–53  
   spoken, 220, 220 n.101  
   of Teozacoalco, 248–49  
   native North American  
     by Corn Tassel, 105–6, 106–7  
     Mississauga, 77, 79, 179  
     Ojibwa, 79  
   Boustrophedonic maps, 208 n.72, 215 n.91  
   Bouysse-Cassagne, Thérèse, 280  
   Bovallius, Carlos, 346 n.66  
 Bower, Australian Aboriginal, 355  
 Bowls  
   as Australian Aboriginal painting  
     medium, 355  
   maps on, 541  
   and surveying, 283–84  
 Bowman, Walter, 144–45 n.286  
 Boyowa, 431  
 Bozo, 28  
 Bracelets, 489  
 Brady Creek, 129  
 Braids, 333, 334  
 Brailsford, Barry, 513 n.82, 524  
 Brandt, John C., 64–65  
 Brant, Captain, 77  
 Brant, Mrs., 79  
 Braun, Georg, 244  
 Bravo, Michael, 56  
 Brazil  
   coverage of, 8 n.35  
   Fundação Nacional do Índio, 302  
   influence of natives on colonial cartography, 301  
   miners from in Venezuela, 322  
 Brébeuf, Jean de, 142 n.280  
 Breuil, Henri, 14  
 Britain. *See also* England; Europe  
   and Aikon Aushabuc's gestural map, 68–69  
   in Algonquian cosmography, 69, 181 n.367  
   and Lamhatty's map, 96  
   and map of Bamum, 43, 44  
   maps used in negotiations with  
     Mississauga Indians, 77, 79, 179  
   requests map of New York, 93–94  
   and Sudan, 47  
   and wampum belts, 89–90  
 British Columbia  
   Beaver Indian map, 138–39  
   map of Kohklux's route in, 115, 116–17, 180  
   survey maps of, 152  
 British Museum, London, 448, 491  
 Britt, Claude, 65–66

- Brody, Hugh, 56  
 Brosset, D., 39  
 Brotherston, Gordon, 109 n.193  
 Browne, David M., 278 n.94  
 Browning, John Samuel, 523  
 Browning Pass (Nonoti Raureka), 523–25, 524  
 Brum, Joachim de, 479, 479 n.94  
 Brum, Raymond de, 479, 479 n.94, 482  
 Bruner, Jerome S., 6  
 Brunner, Thomas, 496–97 n.15, 498–99  
 Bryusov, A. Ya., 331, 331 n.15  
 Buck, Peter H., 486  
 Buckskin. *See* Skins, animal  
 Budy society, 31–33, 48, *pl.*2  
 Buffalo Creek valley. *See* Bull Creek valley  
 Buffalo Head Hill, 124  
 Bugis, 488  
 Buildings. *See also* Architecture  
   African  
     in agriculturalist engravings, 19  
     design and orientation as maps, 25  
     and Dogon cosmography, 26  
     in engraving of Zulu homestead, 19  
     as maps, 5  
     orientation, 28 n.21  
     stone, 17–18  
   Andean  
     from Arena Blanca, 274, 275  
     on Bolivian landholding amulet, 269  
     on map of Cuzco Valley, 285  
     on maps regarding Lake Titicaca reed beds, 265  
     Moche models of, 278–79, 280  
     models of found at Tiwanaku, 282  
     at Old Temple at Chavín de Huántar, 271–72  
     on Sayhuite Stone, 288  
     on Australian Aboriginal maps, 408  
     on Australian Aboriginal plans, 410  
     on Eurasian Arctic and Subarctic artifacts, 345, 346, 347  
     on Eurasian Arctic and Subarctic maps, 340, 345, 349  
   Mesoamerican, 201, 237  
   on Mesoamerican maps  
     of Don Miguel Damian's property, 225, 226  
     military map from Codex Florentine, 228  
     Plano en papel de maguey, 184, 187, 224  
     in Primeros memoriales, 227  
     of Tenochtitlan, 194  
     in native North American art, 169  
     on native North American maps, 97, 112, 160, 179  
     South American and Caribbean, 303–4, 306–7, 309, 318, 319  
 Bukurlatjpi, Liwukang, 371, 372  
 Bull (Buffalo) Creek valley, 68  
 Buller (Kawatiri) River, 496–97 n.15, 498  
 Bullion Mountains, 63  
 Bull-roarers, 359, 359 n.27, 365, 379, 539, 541  
 Bul'ngu ("Thunderman"), 404  
 Bundles, sacred, 124–25  
 Bunduk, Nym, 403–5, 407  
*Bungdockeing* (northern) swells, 476, 477, 479, 480, 482  
*Bungdockerik* (southeastern) swells, 476, 477, 479, 480, 482  
 Bununggu, 398 n.34  
*Buoj* (knot or node). *See* *Bõt*  
 Burial mounds. *See* Mounds  
 Burials. *See also* Graves; Tombs  
   Eurasian Arctic and Subarctic, 331 n.16  
   Māori, 497, 497 n.22  
   Maya, 234  
   South American and Caribbean, 306  
 Burland, C. A., 191, 193 n.29  
 Burton, W. F. P., 32  
 Burumburumbunya, 370  
 Bushmen. *See* Khoisan  
 Butte Creek, 115  
 Butterfly god, 310, 315  
 Buttes  
   on Bad Heart Bull's map of Black Hills, 179  
   on Bad Heart Bull's picture map, 119, 122  
   on Paiute map, 113  
 Butwa scarification, 30, 31  
 Buynda River, 345  
 Byland, Bruce E., 191  
 Cacao, 301  
 Cacti, 193  
 Cadastral maps  
   Mesoamerican, 221–24, 252–53  
     frequency of survival, 196  
     Plano en papel de maguey, 184, 186–87, 196, 224, 252–53  
   of New Hampshire, 91 n.133  
   *tocapu* designs and, 294  
 Cadastral registers, 224 n.106  
 Caddo Indians  
   on Kiowa calendar, 173, 174  
   language, 99 n.165  
   and word for "map," 52  
 Caffa (Kaffe), 47  
 Cahuachi, 276  
*Cahua quina* (Cliff of the Childbirth), 215  
 Caimans, 272–73, 299  
 Cairns, 276  
 "Calabash, sacred," 485–86  
 Calendars, 539  
   Andean  
     on Bennett Stela, 282  
     Inka, 286, 287  
     *khipus* and, 290, 291, 293, 293, 299  
     Paracas polychrome mantle as, 273  
     in rock art, 271  
   Eurasian Arctic and Subarctic, 346, 346 n.66  
   Mesoamerican, 183, 193  
     in Codex Borgia, 232 n.132, 240  
     in Codex Fejérváry-Mayer, 229–32, 230, 232, 236  
     in Codex Madrid, 232, 233  
     in Codex Mendoza, 236  
     and cosmography, 203  
     native North American, 173, 174  
 Calendar Stone, 238, 254–55  
 California  
   Frémont describes map of, 113–14  
   glyph from, 61  
   Ishi's map of northeastern, 115, 118, 172, 172 n.351  
   lack of indigenous maps from, 106  
   on map of "Yurok idea of the world," 181  
 Calli (House) (year sign), 203, 232  
*Calpolli* (social groups), 221  
*Calpolli* maps, 222, 224, 224 n.106, 225  
 Camelids, 277, 288  
 Cameroon  
   mapmaking in Bamum, 41–45  
   Möisel's maps of, 42, 44, 45  
 Campfires, 393  
 Camps  
   on Australian Aboriginal maps, 539  
   Australian Aboriginal plans of, 409, 410, 411  
   in Eurasian Arctic and Subarctic cosmography, 337  
   on Eurasian Arctic and Subarctic maps, 345  
   on Māori maps, 513, 531 n.125  
   on native North American maps, 84, 133  
   in native North American rock art, 181  
   in *Pankalangu Ceremonies at Yamunturunga*, *pl.*19  
   in southern African rock art, 15  
 Canada, maps of  
   Acktis Island, 112, 113, 180  
   Arctic Bay (Cape Dorset), 169–70  
   Baffin Island, 159, 160, 164–65  
   Belcher Islands, 155, 164, 165  
   British Columbia, 115, 116–17  
   Cape Fullerton, 160–61, 162–65  
   Charlton Island, 151–52, 154, 156, 173, 179  
   Connecticut River, 77, 77 n.81, 78–79, 178  
   Cumberland Sound, 170 n.336  
   forest-tundra boundaries in northern interior, 149  
   Hudson Bay, 165–66  
   Hudson River, 77, 77 n.81, 78–79, 178  
   by Huron Indians, 67 n.60  
   John Scotts Lake to Wikusko Lake, 154  
   Keewatin District, 161–62, 164–65, 179, 180  
   Lachine Rapids, 67–68, 172  
   Lake Nipigon, 149, 151, 154, 177  
   Lake Ontario, 142 n.280  
   Manitoba, 144, 145–46, 147, 148, 179  
   Melville Peninsula, 157, 159, 160, 164–65  
   Mississauga boundary map, 77, 79, 179  
   Missouri and South Saskatchewan Rivers, 129–32  
   Moisie River, 136, 138, 180  
   northern and central Plains, 132–33, 134,



- 135  
northwestern, 143–45, 146, 146 n.291, 149, 150–51, 152, 165  
Prince Regent Inlet, 159, *pl.8*  
Qu'Appelle River, 129  
related to King William's War, 94  
relating to Beothuk Indians, 73 n.79  
Repulse Bay, 159, *pl.8*  
St. Lawrence–Great Lakes, 82, 83  
St. Lawrence River, 67–68, 71–72, 77, 77 n.81, 78–79, 178  
Susquehanna River, 77, 77 n.81, 78–79, 178  
territory west of Lake Superior, 145 n.287  
Victoria Island, 157  
western, 136–38, 140–41, 149  
Yukon Territory, 115, 116–17, 143  
Canada House, London, 56 n.26  
Canadian River, 132  
Canadian Shield, 145, 146  
Canals  
Andean  
Chicama-Moche canal, 283–84  
Chimú surveying instruments and, 284  
Inka association with pumas, 285  
on map by Guamán Poma, 264  
on map of Lambayeque River, 262, 264  
on Moche pottery, 278, 279  
on Nasca pottery, 277–78, 277 n.93  
on Quinoa pottery, 265  
on Sayhuite Stone, 288  
in Taypikala, 280  
as territorial boundaries in Cuzco Valley, 286  
at Tiwanaku, 283  
on Mesoamerican maps  
Humboldt Fragment 2, 222  
Plano en papel de maguey, 187, 224  
of Tenochtitlan, 193, 193 n.33  
Canela peoples, 311  
Canes, 485  
Cañete River, 274  
*Caniba* (enemy warriors), 315, 324  
Canis Major, 305  
Canoe River, 114  
Canoes  
on Eurasian Arctic and Subarctic maps, 343, 344  
*Höküle'a*, 451, 451 nn.26–28, 30, 457 n.42, 460 n.48, 461, 461 n.51, 468, 474, 475 n.81, 487  
and Lake Nipigon, 151  
maps on benches, 171, 346, 348  
in Melanesian cosmology, 427, 427 n.14  
on native North American maps  
Andrew's route map, 149, 152–53, 177, 178  
on blazed tree, 87  
in Oceanic navigation, 421, 461, 487  
Carolinian, 451–53, 462, 463, 469, 471  
Kiribati, 485 n.105  
Marshallese, 475, 475 n.81, 485  
Micronesian, 454  
Polynesian, 450–51, 451 n.28  
righting, 487  
and song maps from Tubetube, 434  
on South American and Caribbean maps, 310, 311, 323  
spread to South India and Sri Lanka, 488  
on Tello Obelisk, 272, 273  
in Tukano origin myth, 309  
*waka*, 493  
Canopus, 306  
Canterbury, New Zealand, 525  
Canterbury River, 523  
Cantova, Juan Antonio, 453, 454, 454 n.36  
Canvas, Australian Aboriginal paintings on, 359, 379  
Canyon de Chelly, Arizona, 65–66  
Cape Ann, 68  
Cape Colville, 500  
Cape Dorset, 169–70  
Cape Farewell, 530  
Cape Fullerton, 160–61, 162–65  
Capella (star), 121, 306  
Cape Prince of Wales, 159, 167  
Cape Rēinga. *See* Rēinga  
Cape York Peninsula, Australia, 377–79  
Capitals  
on map of Bamum, 43  
on Ras Makonnen's map, 47  
Captain, map by, 390  
Captain of Pakana, 101, 102, 103, 177, 178  
Cardinal directions  
African  
on Bernus's maps, 39–40  
religious significance, 27–28 n.21  
on Tigrean maps, 29  
in African cosmography, 25, 26, 27, 541  
on al-Birūnī's spherical diagram, 29  
Māori names for, 497  
on Mesoamerican calendars, 193  
in Mesoamerican cosmography, 187, 203, 229, 232  
in Codex Aubin, 253  
in Codex Fejérváry-Mayer, 230–32, 236  
in Codex Madrid, 232, 233, 255  
on tomb at Río Azul, 234, 255  
in native North American cosmography, 53, 110, 141  
on native North American maps, 146 n.291, 176  
in South American and Caribbean cosmology, 305, 310, 311  
on Tjapaltjarri's map, 400  
in Warao cosmology, 315  
Cardinal points, 539  
on Eurasian Arctic and Subarctic maps, 340  
on native North American drumheads, 139  
on Paiute map, 113  
on Tahitian compasses, 497  
Cards, playing, 151  
Cargill, William, 505, 505 n.56  
Caribbean Sea, 301–26  
celestial and cosmological maps, 304–18, 319  
Europeans' inclusion of native information, 322–25  
historical reports of indigenous mapmaking, 319–22  
influence of natives on cartography, 301  
maps of, 302, 319–20  
naming of islands in, 324  
theoretical considerations, 302–4  
Caribou, 135, 143, 171  
and scapulimancy, 139, 141, 142  
Caribs, 301, 302 n.2, 321 n.49, 324  
Caroline Islands  
learning of navigation in, 465  
location, 461  
maps of  
by Cantova, 453, 454, 454 n.36  
early European, 451–53, 454, 455  
by Klein, 452, 453, 489  
by Kotzebue, 454 n.36  
modern, 455  
modern navigational practices, 468–69  
navigation  
and cartography, 461–75  
practices, 458  
traditional, 443, 444, 454  
triggerfish, 467, 468, 469, 470  
women and, 455  
settlement, 420, 421  
star compasses from, 462, 463–65, 487, 488–89  
Carson River, 113  
*Carta* (letter, document, chart, or map), 290, 291  
*Carta da navigare*, 1–2  
“Carta de las Nuevas Philipinas [Palao],” 452, 453  
“Carte du royaume de Kouollo” (Haïle Mariam), 38 n.68  
“Carte Tracée par les Cris” (La Vérendrye's map), 144, 145–46, 179  
Cartier, Jacques, 67–68, 172  
Cartographic conventions  
Andean, 295–96, 298–99  
European, 285, 285 n.130  
Mesoamerican, 198, 242–44  
on map in Codex Kingsborough, 251  
on map of Tetlitzaca, 245, 246  
“Cartographic Encounters” exhibition (Newberry Library, Chicago), 56 n.26  
*Cartographic Encounters* (G. Malcolm Lewis), 56, 56 n.29, 57  
Cartographic histories, Mesoamerican, 187, 204–18, 248–51  
compared with *lienzos*, 204 n.60  
continuance of, 245  
and depopulation, 240–41  
frequency of survival, 196  
and media and place of origin, 196  
permanent and gestural, 220–21  
shape of, 196  
Cartography  
African, 13–48  
intertropical Africa, 24–48

- Cartography, African (*cont.*)  
 rock art in southern Africa, 13–23  
 American, 51–326  
 Andean, 257–300  
 Inka, 284–97, 298–99  
 Mesoamerican, 183–256  
 native North American, 51–182  
 South American and Caribbean, 301–26  
 Arctic and Subarctic Eurasian, 329–49  
 Australian Aboriginal, 352–416  
 classic traditions, 352–86  
 maps and plans, 387–416  
 cognitive, 3–4, 5  
 dance as, 5  
 defined, 301  
 indigenous, 540  
 difficulties in assessing, 319  
 levels of, 172–73  
 in South America and Caribbean, 319–22  
 informal vs. formal, 257  
 material, 3, 5  
 Pacific Basin, 419–536  
 Māori, 493–536  
 Oceanic, 443–92  
 in Papua New Guinea, 423–42  
 performance, 3, 4–5  
 Cartouches  
 on Bonampak mural, 237, 255  
 in Codex Aubin, 253  
 in Codex Boturini, 221  
 in Codex Fejérváry-Mayer, 231, 232  
 on Mapa de Sigüenza, 219  
 Carver, Jonathan, 86–87, 145 n.287  
 Carvings  
 Australian Aboriginal, 355, 357–58  
 and South American and Caribbean cartography, 301  
 and Tabwa cosmography, 31  
 Casas, Bartolomé de las, 319–20  
 Cascades Rapids, 67  
 Caso, Alfonso, 190, 191  
 Cassiopeia, 465  
 Casteñeda, Don Alonso de, 215  
 Castilla. *See* Spain  
 Castor (star), 121  
 Catawba Indians, 91, 539  
 map of South Carolina, 99, 101, *pl.4*  
 Catfish, 80  
 Catholicism, 236, 240, 241, 244  
 Cation-ratio varnish dating technique, 61  
 Cattle, 18, 19  
 Cauac (year bearer), 203  
 Caves  
 on Andean maps, 295  
 on Australian Aboriginal maps, 389  
 importance to Caribbean natives, 324  
 on Māori maps, 525, 531 n.125, 535  
 on Mesoamerican maps, 189, 205, 206, 251  
 in Mesoamerican origin myths, 205 n.63  
 Mesoamerican pictographs for, 200  
 on native North American maps, 118  
 near Waitaki River, 520, 522  
 in South American and Caribbean cartography, 303  
 Cayao (non-Inka), 286  
 Cayenquaragoes, 94  
 Cayuga Indians, 74–77, 89, 90  
 Cederström, Thoric N., 184–85 n.6  
 Celebes Island. *See* Sulawesi (Celebes) Island  
 Celestial anacondas, 304, 308, 311, 320  
 Celestial maps, 8, 23  
 Andean  
 to explain Q'ero *pallay*, 267 n.38  
 in rock art, 271  
 Tello Obelisk and, 272–73  
 Barasana, 5  
 Eurasian Arctic and Subarctic, 332–37, 338, 339  
 Koryak shaman's coat, 171, 333–34, 336, *pl.14*  
 Melanesian, 427–28  
 Mesoamerican, 187, 196, 237–40, 254–55  
 Calendar Stone, 254–55  
 Primeros memoriales, 254–55  
 Micronesian, 428 n.19  
 native North American, 51, 175, 178, 181–82  
 from Big Black Meteoric Star Bundle, 123–25, *pl.7*  
 Lakota, 125  
 Navajo, 65  
 Navajo sandpaintings as, 110  
 Pawnee, *pl.7*  
 in rock art, 63–66, 67  
 southeastern, 94, 94 n.147  
 Polynesian, 428 n.19  
 South American and Caribbean, 301, 304–18, 319  
 hexagon as model for, 306, 308  
 pictographs in, 301  
 traditional, 541  
 Celestial monsters, 233, 235, 255  
 Celestial orientation, 340  
 Celestial signs, 43  
 Celestial vault, 53  
*Cemanauactli ymachiyo, tlalticpactli ycemittoca* (Nahuatl term for *map-pamundi*), 187  
*Cemi* (idols), 317, 318  
*Cemmatl* (unit of measurement), 203  
*Cemmitl* (unit of measurement), 203  
 Ceniz, 95  
 Censuses  
 of important Mesoamerican maps, 248–55  
*khipus* and, 290, 293  
 Center  
 in Amerindian cosmography, 53  
 on Mesoamerican maps, 203, 231, 232  
 in traditional cosmography, 538–39  
 Central Siberian Plateau, 330 n.5, 343  
 Century, Mesoamerican, 183  
*Cenyollotli* (unit of measurement), 203  
*Ceque* system, 285–87  
 drawing of house of Manco Capac and, 295  
*huacas* in, 287–88, 289  
*khipus* and, 291, 293  
 Pacariqtambo in, 295 n.180  
 and radial landscape organization, 297, 299  
 roads and, 289  
 and *tocapu* designs, 294  
 Ceramics  
 Andean  
 maps on, 264–65, 266  
 Moche, 278–79, 280, 288  
 Nasca, 275–78  
 Nazca geoglyphs and, 276  
 from Old Temple at Chavín de Huántar, 271  
 Paracas, 273 n.67  
 Quinua, 297  
 and surveying, 283–84  
 Macassan, 413  
 as maps, 3, 5, 10, 541  
 Mesoamerican cosmographic maps on, 197, 232–34, 235, 241, 254–55  
 and South American and Caribbean cosmology, 303–4, 319  
 Cerro Colorado, textile from, 273–74  
 Cerro Manoa, Venezuela, 313  
 Certeau, Michel de, 4 n.9  
 Chachapoyas, Peru, 313  
 Chachiumia Indians, 103  
 Chaco Canyon, 64, 65  
 Chac Xib Chac, 233  
*Chakras* (agricultural fields), 262, 283 n.119  
 Chalco, 228  
 Chalk  
 Māori maps in, 503, 508  
 native North American maps in, 68, 69, 94, 144  
 Chalky Inlet (Taiari), 516, 533  
 Chaloupka, George, 356–57  
 Chamberlain, Von Del, 65–66, 67  
 Chambri Lake, 440  
 Chambri people, 436–38, 440, 441  
 Chamisso, 454 n.36  
 Champlain, Samuel de, 67 n.60, 69, 180, 180 n.364  
 and native North American map of Cape Ann, 68  
 sketches of St. Lawrence River obtained by, 71–72  
 and Velasco map, 70, 70 n.76  
 Chan Chan, 283, 293, 294  
 Chants  
 in Carolinian navigation, 468  
 South American and Caribbean, 301, 316–17  
 Chaplino, 348, 349  
 Chapman, Henry Samuel, 513, 513 n.80  
 Chapultepec (Grasshopper Hill), 219  
 Charbonneau, Toussaint, 115  
 Charcoal, 366  
 Māori maps in, 500, 501, 530, 531  
 native North American maps in, 68, 69, 84, 85, 86, 87, 88, 114, 129, 130, 138, 143

- Charles V (Spain), 95, 244  
and Cortés's map of Tenochtitlan, 194, 195  
on Lienzo of Petlacala, 247, *pl.12*
- Charleston, South Carolina, 101
- Charlton Island, 165  
surveying of, 151–52, 154, 156, 173, 179
- Charts  
migration (*see* Scrolls)  
nautical (*see* Nautical charts)  
pole, 467  
stick, 1, 6 n.22, 475, 476, 479–85, 487, 489–92
- Chatham Islands (Rēkohu/Rākohu or Whare Kauri)  
Māori maps of, 503, 504, 509, 510, 511, 534  
reference map, 511
- Chatwin, Bruce, 360, 360 n.37
- Chavín culture, 271–73, 297
- Chavín de Huántar, Old Temple at, 271–73
- Cheikh-'Othmān, 38
- Chemehuevi Mountains, 63
- Cherokee Indians  
on Catawba map, 101  
Corn Tassel's map, 105–6, 106–7  
and maps, 94  
on "Nations Amies et Ennemies des Tchikachas," 103  
and wampum belts, 89
- Chert, 493
- Chertezhi* (drafts), 330 n.6
- Chesapeake Bay  
on map of Susquehanna River, 74, 75  
maps of, 67 n.60, 68, 69–70, 72  
maps produced by native North Americans in, 67
- Chesterfield Inlet  
on Auld's map, 166  
on Meatonabee and Idotlyazee's map, 146  
on Meliki's map of Keewatin District, 162  
on Nay hik til lok's map, 166, 166 n.326
- Chevrons, 482, 484
- Chewings, Charles, 406–7
- Cheyenne Indians  
Howling Wolf's maps, 118, 119, 120, 121, 179  
words for "map," 52
- Chhiutas* ritual, 270, 274, 276, 297, 299
- Chibcha, 324
- Chibchan-Paezan languages, 98
- Chicama-Moche canal, 283–84
- Chichén Itzá, 184 n.5, 256
- Chichimecs, 251
- Chichimecotl, Don Carlos, 253
- Chickasaw Indians, 91  
on Catawba map, 101  
and French, 173  
language, 99 n.166  
map of southeastern North America, 99–101, 115 n.217, 173, 176  
on "Nations Amies et Ennemies des Tchikachas," 103  
on "Plan et Scituation des Villages Tchikachas," 101, 102, 177, 178
- Chicomoztoc (Seven Cave), 218, 219, 222, 250–51
- Chieftain vessels, 277–78, 297
- Childbirth, 110, 215, 230
- Children, Australian Aboriginal drawings by, 389
- Chile, 8 n.35, 541
- Chilkat (Tlingit) Indians  
art compared with Amur River peoples', 171  
maps by Kohklux, 115, 116–17, 180
- Chilkat River, 115
- Chimú kingdom, 283–84
- China  
Amur River peoples, 171  
Austronesians and, 421  
book of travels and sites in North America, 62–63 n.46  
in Eurasian Arctic and Subarctic cosmography, 339  
knowledge of Eurasian Arctic and Subarctic, 330
- Chinampas* (raised beds), 224
- Chincha River, 274
- Chinchasuyu, 299
- Chinchoros, 266
- Chippewa Indians, 91  
and Knight's map, 149, 152  
maps by  
Andrew's map, 149, 152–53, 177, 178  
boundaries on, 179  
in exhibitions, 56 n.26  
Jimmy Anderson and Curly Head's map, 146, 148  
Meatonabee and Idotlyazee's map, 149  
of western Canada, 136–38, 140–41, 149  
and maps on blazed trees, 86–87  
petition for home in Wisconsin, 79, 79 n.91, 80, 81
- Chippewa River, 86–87
- Chocho, 207, 248–49, 250–51
- Choctaw Indians, 53, 103, 105 n.175
- Cholula, 215, 219, 222, 225, 250–51, 252–53
- Chontal Mayas, 228, 228 n.123
- Chota, 105
- Chotta (town), 89
- Christ, 337
- Christchurch Diocesan Māori Mission, 523
- Christianity, 322. *See also* Religion  
lack of missionaries in Soviet Union, 330  
Lapps and, 336, 337  
medieval, 539  
and orientation of Tigrean maps, 29–30
- Chubbin, John, 504–5
- Chucuito, Peru, 269
- Chukchi Peninsula, 340 n.42, 346, 348
- Chukchi people  
and bleached sealskin, 346, 348, 348 n.68, 349  
cosmology, 333–34  
and decorated canoe benches, 346  
and decorated paddles, 345, 347  
maps on wooden boards, 341–42, 343  
and shamanistic rituals, 6  
and vertical perspective, 340 n.42
- Chukchi Sea, 171, 329
- Chuquitos, 299
- Churches  
on Bolivian landholding amulet, 269  
in Eurasian Arctic and Subarctic cosmography, 337  
on Mesoamerican maps, 244  
of Amoltepec, 214  
of Atlatlahuacan, Morelos, 242  
of Maní, 209, 210  
of Teozacoalco, 212, 244  
of Tetlitzaca, 246
- Churchill, Canada, 136
- Churchill Factory, 149
- Churchill River, 138, 146, 147, 148
- Church of the Holy Virgin (Aksum), 30
- Churinga*, 359, 359 n.27, 365
- Chuuk (Truk), 454, 455
- Chuwa Chuwa, Peru, 263
- Cibic, 142 n.277
- Cibola, Seven Cities of, 108, 108 n.184
- Cieza de León, Pedro de, 284
- Cigar holders, 311
- Cihuatl*, 246
- Cihuatlampa* (woman's land), 230, 232
- Cihuyuca (Place of Womanhood), 246
- Cimarron River, 129, 132
- Cimon, 142 n.277
- Circles, 539. *See also* Rings  
in African cosmography, 27, 541  
on African maps  
of Bamum, 43  
by Bello, 34  
by Bernus, 38  
centering on Aksum, 28, 29  
intertropical cosmographic maps, 25  
*lukala* maps, 32  
*lukasa*, 32  
southern African agriculturalist engravings, 19, 23
- on Andean maps  
Bennett Stela, 282  
on Nasca pottery, 277  
on Quinoa pottery, 265
- in Australian Aboriginal art, 539
- on Australian Aboriginal maps, 388, 389, 399, 401  
mud maps, 407, 408  
Warlpiri, 365, 412, 539
- on Australian Aboriginal paintings, 363 n.41, 373, 381
- on Australian Aboriginal rock engravings, 374
- in Carolinian star compass, 462, 463
- in Eurasian Arctic and Subarctic cosmography  
on Dolgan drum, 336  
on Evenk *tyngirin*, 335  
on Nivkhi ritual vessels, 347  
on Sami drum, 337
- Guamán Poma and, 295

- Circles (*cont.*)  
 on Kiowa calendar, 173  
 in kula system, 431  
 on Map Rock petroglyph, 62, 64  
 on Melanesian maps, 430  
 in Mesoamerican cartography, 209, 210  
 in Mesoamerican cosmography, 235  
 in native North American cosmography, 181  
   Algonquian, 69  
   Kiowa, 53  
   Lakota, 121  
   maps on drumheads, 139  
   on native North American mounds, 95  
   Oglala Sioux, 53  
 on native North American maps, 68, 69, 69 n.72, 176  
 by Andrew, 149  
 cartographic pictograph, 80  
 by Catawbas, 101  
 by Chickasaws, 99  
 compiled for Inuit Land Use and Occupancy Project, 170  
 cosmographical maps on drumheads, 139  
 by Gero-Schunu-Wy-Ha, 133  
 by Ki oo Cus, 129–30, 161  
 Luiseño and Diegueño sandpainting, 112  
 by Miguel, 126  
 “Nations Amies et Ennemies des Tchikachas,” 103  
 by Non-Chi-Ning-Ga, 135  
 “Plan et Scituation des Villages Tchikachas,” 101  
 printed presurvey maps of Canadian Shield, 145  
 on Pacific Basin maps, 453, 501  
 quartered, 260, 261, 262  
 sleeping, 63  
 in South American and Caribbean cosmology, 311, 318, 318, 435
- Circuit networks, 177, 178
- Circular maps  
 ancient Greek, 29 n.31  
 Mesoamerican, 196, 210, 212, 213, 214, 539  
   of Amoltepec, 214, 248–49  
   of Teozacoalco, 212, 244, 248–49
- Circumambulation, Mesoamerican ritual of, 197–98, 206–7, 220–21, *pl.*9
- Cities. *See* Settlements; Urban centers; *and specific cities*
- Citlalinpopuca (smoking star or comet), 239
- Citlaltlactli (Starry Ball Court) (constellation), 239
- Citlapol (Venus), 239
- City plans, 225, 244
- Ciudad Real, Antonio de, 185 n.9
- Clans  
 Australian, 376, 376 n.75  
 and Iatmul body painting, 438  
 Melanesian, 423, 423 n.2  
 South American and Caribbean, 311
- Clanwilliam, rock art scene from, 14–15, *pl.*1
- Clapperton, Hugh, 34–35
- Clark, Ben, 118
- Clark, William, 114–15, 129, 129 n.249
- Clarke, Henry T., 512
- Clarkson, Persis Banvard, 6
- Classes, social, 286
- Claus, William, 77
- Clay  
 in Achuar system of landmarks, 303  
 Andean maps in, 285  
 Australian Aboriginal maps in, 404  
 Australian Aboriginal paintings in, 355
- Clayoquot Sound, 112, 113, 180
- Clearings, 101
- Cliffs, 531 n.125, 535
- Cloth, maps on, 541. *See also* Clothing; Textiles  
 Andean, 266–68, 269  
 Mesoamerican, 184, 186–87, 187, 189, 194–95, 194–95, 195 n.37, 196, 203, 207, 215, 228, 248–49, 250–51, 252–53
- Clothing, 171, 294, 316, 333–34, 336, *pl.* 14
- Clouds  
 in Australian Aboriginal cosmography, 371 n.65  
 on map of South American and Caribbean vision quest, 310  
 and Oceanic navigation, 443, 457, 457 n.42, 460
- Clowes, Samuel, 94
- Clubs, 355, 541. *See also* Weapons
- Clutha River. *See* Matau River
- Coal  
 Eurasian Arctic and Subarctic maps in, 343, 345  
 on Kohklux’s map, 117  
 native North American maps in, 95
- Coal Island, 516
- Coastlines  
 on Chukchi decorated paddle, 345, 347  
 on Chukchi wooden board map, 341  
 Cossack routes following, 330 n.5  
 English maps of, 90, 90 n.131  
 on Eurasian Arctic and Subarctic canoe benches, 346  
 on European maps, 145  
 of Lake Titicaca, 263–64, 264 n.27, 265, 297  
 in late twentieth-century Inuit art, 169  
 on Māori maps, 531 n.125, 535, 536  
 on map of Motecuhzoma’s domain, 228, 228 n.121  
 on native North American maps, 178, 179  
   by Ammassaliks, 167, 168, 169, 176  
   by Bering Strait Eskimos, 159  
   on birchbark, 80  
   Champlain’s map, 90, 91, 180 n.364  
   by Chickasaws, 100 n.167, 101  
   by Howling Wolf, 118, 119  
   by Inuit, 157, 165–66  
   Knight’s map, 146, 149, 152  
   by Lambhatty, 96  
   by Meatonabee and Idotlyazee, 146, 149, 165  
   by Meliki, 161  
   Micmac map of Maine, 68  
   “Nations Amies et Ennemies des Tchikachas,” 103  
   Subarctic, 165–66  
   by Toongalook, 170  
   on walrus tusks, 167
- Coast Mountains, 115, 116–17
- Coatepec Chalco, 201
- Coats of arms, 295, 299
- Cobo, Bernabé, 284
- Cochabamba Valley, 262
- Coconut leaves  
 in Carolinian star compass, 462, 463  
 in Marshallese stick charts, 479, 480
- Cocopona, 287
- Codes, symbolic, 10
- Codex, defined, 196, 196 n.38
- Codex Aubin, 196, 252–53
- Codex Azcatitlan, 218 n.98
- Codex Borbonicus, 200
- Codex Borgia, 241  
 maps in, 196, 238–40, 252–53  
 pictographs from, 200, 201  
 Venus as morning star in, *pl.*10
- Codex Boturini, 218, 218 n.98, 219, 220, 221, 246, 248–49
- Codex Fejérváry-Mayer, 196, 229–32, 233, 234, 237, 240, 241, 252–53
- Codex Florentine, 212 n.83, 227–28, 252–53
- Codex Ixtlan. *See* *Lienzos*, of Coixtlahuaca 1
- Codex Kingsborough, 184, 189, 244, 250–51
- Codex Madrid, 196, 197, 232, 233, 254–55
- Codex Meixueiro (Lienzo A), 250–51
- Codex Mendoza, 193 n.32, 196 n.38  
 Atototl hieroglyph in, 198, 199  
 map of Tenochtitlan in, 192–93, 193–94, 225, 235–37, 244, 252–53  
 and *Nombres geográficos de México*, 190–91  
 palace complexes on maps in, 225 n.115  
 pictographs from, 200
- Codex Nuttall, 200, 201, 215–18, 242, 248–49
- Codex Ríos, 196 n.38, 234, 234 nn.136–38, 236, 239, 240, 241, 254–55
- Codex Selden, 200, 201
- Codex Vaticanus, 232 n.132
- Codex Vienna, 200, 201, 204, 218
- Codex Xolotl, 196 n.38, 539–40  
 cartographic history in, 196, 205–7, 208, 248–49, *pl.*9  
 compared with Codex Boturini, 220  
 footprints in, 210  
 and Ixtlilxochitl’s works, 190  
 pictographs from, 200  
 and territorial rights, 218, 220
- Codex Zouche-Nuttall. *See* Codex Nuttall
- Coffee growers, 43 n.82

- Cognitive cartography, 5, 537  
 Coixtlahuaca, 191, 196, 250–51  
 Coixtlahuaca group of maps, 184–85 n.6, 207, 207 n.70, 219, 250–53  
 Coixtlahuaca Valley, 207 n.70, 250–51  
 Cold iced sea, 339  
*Collana* (Inka), 286  
 Collasuyu, 288, 299  
 Collins, David, 508 n.65  
 Collinson, Richard, 157  
 Colombia, 5  
 Colonization. *See* Settlement  
 Color  
   on African maps, 34, 43  
   on Andean maps  
     *khipus*, 290  
     Moche house model, 279, 280  
     Moche landscape vessel, 279  
     *pallays*, 268  
   on Andean textiles, 267  
   on Australian Aboriginal maps, 387, 390, 404  
   on Australian Aboriginal paintings, 366, 371  
   on Chukchi decorated paddle, 345  
   on Evenk shaman's costume, 333  
   in Iatmul body painting, 438  
   on Melanesian shield, 432  
   on Mesoamerican ceramics, 197  
   in Mesoamerican cosmography, 203, 232, 236  
   on Mesoamerican maps, 197  
     of Apoala Valley in Codex Nuttall, 216  
     Mapa de Tezacoalco, 244  
     relating to land tenure, 221–22  
     of Tenochtitlan, 193, 193 n.33, 194, 235–36  
   on native North American maps  
     by Andrew, 152  
     by Bad Heart Bull, 119, 122, 123  
     Catawba map, 99  
     Delaware map on blazed tree, 88  
     Kiowa, 53, 173, 174  
     of Maine coastline, 91  
     “Nations Amies et Ennemies des Tchikachas,” 103  
     in Navajo sandpainting, 109–10, 175  
     Navajo star ceilings, 65  
     Pawnee celestial chart, *pl.*7  
     pictograph at Rancho El Tajo, 61  
     related to King William's War, 94  
     showing treaties between Iroquois and Canadian Indians, 94  
     star chart from Big Black Meteoric Star Bundle, 125  
     on wampum belts, 89, 90  
     by Windigo, 151, 154  
     on Ropoama Te One's map, 526  
     on toas, 370, 383, 384  
 Colorado, Kiowa-Apache map of, 129  
 Colorado River  
   Halchidhoma map of, 108, 172, 177  
   petroglyph of, 61–62, 63  
   Ulloa reaches mouth of, 108 n.184  
   Yuman map of, 106 n.183, 177, 177 n.360, 178  
 Columbia, South Carolina, 101  
 Columbus, Christopher, 56, 301, 319, 324  
 Columns, 311  
 Colutl (Scorpion) (constellation), 239  
 Colville, Clyde A., 110  
 Comanche Indians, 5, 118, 128–29, 180  
 Comeau, Napoleon A., 139  
 Comer, George, 160, 160 n.321, 161, 162  
 Comets, 239  
*Comisario de bienes comunales* (commissioner of communal assets), 220  
 Community-kingdoms, Mesoamerican, 204–5  
 Comparisons, cross-cultural, 8–9  
 Compasses  
   magnetic, 465  
     in Caroline Islands, 463–64, 469  
     used by Bugis, 488  
   Mesoamerican use of, 201 n.55  
   not used to create Catawba map, 101  
   omitted from native North American maps, 137  
   star, 539  
     Carolinian, 458, 460, 462, 463–65, 487, 488–89  
     “star path,” 463, 464  
     sun-wind, 497  
     Tahitian, 497  
     used to draw Chickasaw map, 99  
 Compass points  
   indications of in Trobriand Islands, 435 n.40  
   in traditional cosmography, 539  
   in *wor n'su*, 435  
 Compass roses, 539  
   canoes as, 487  
   on Caroline Island nautical charts, 469  
   “star compass rose,” 458  
 Complementarity, 259–60  
 Concentric circles  
   on Ethiopian maps centering on Aksum, 28, 29  
   in Kayapó cosmology, 311, 317  
   on Melanesian maps, 430  
*Conception of the World with Sky* (Billy and Maning), 368–69  
 Condesuyu, 299  
 Congo River, 32  
 Connecticut River, 77, 77 n.81, 78–79, 178  
 Conquistadores, Spanish, 183, 196, 229  
 Constellations  
   Andean  
     dark cloud, 260 n.14  
     on Moche landscape vessel, 279  
     on Nasca pottery, 277  
     Quechua, 260 n.14  
     on Santa Cruz Pachacuti's drawing of Coricancha, 297  
     on Tello Obelisk, 272  
   in Australian Aboriginal mapping, 369  
   in Carolinian navigation, 465, 465  
   and Eurasian Arctic and Subarctic shamanism, 333–34  
   on Koryak dancing coat, 334, 336, *pl.*14  
   Mesoamerican, 187, 237  
     on Bonampak mural, 237–38, 254–55  
     on Calendar Stone, 255  
     Maya, 237 n.150  
     in Primeros memoriales, 238, 239, 255  
   native North American  
     on Diegueño sandpainting, 112  
     Lakota, 120–21  
     mounds, 95  
     Navajo, 65, 66, 67, 109–10, 111  
     Pawnee, 54  
     and Oceanic mental navigation, 443  
     South American and Caribbean, 320  
     in Arawakan Wakuénai cosmology, 317  
     Barasana, 306, 307  
     in Tukano night sky, 308  
     visualized as humans or animals, 304–5  
 Constructs, spatial, 3  
 “Continuation of the Report of the Sieur de La Vérendrye,” 145  
 Conti Rossini, Carlo, 45, 47  
 Conventions, cartographic  
   Australian Aboriginal, 367–68, 389–90  
   European, 285, 285 n.130  
   on Guamán Poma's map of Inka empire, 295–96, 298–99  
   Mesoamerican, 198, 242–44  
     in cartographic histories and screenfold manuscripts, 215  
     in Codex Kingsborough, 251  
     of Tetlitzaca, 245, 246  
 Cook, James, 443, 445–46, 454, 458, 473, 505, 508  
   failed to record Māori map in journal, 501, 501 n.40  
   on Māori map of South Island, 514  
   Māori maps drawn for, 495, 500–501, 530, 531  
   and Tupaia's chart of Polynesia, 446–51  
 Cook Islands  
   settlement, 420  
   on Tupaia's chart of Polynesia, 450  
   wind rose from, 458–59, 465  
 Cooley, William Desborough, 38, 38 n.68  
 Cooper-Hewitt National Museum of Design, New York, 56 n.26  
 Copan, Maya pyramid at, 234  
 Copper Eskimos, 157, 158  
 Coppermine River  
   on Chippewa maps of western Canada, 136, 137  
   on Knight's map, 149  
   on Meatonabee and Idotlyazee's map, 146, 151  
 Copulation. *See* Sexual intercourse  
 Copway, George, 82, 181 n.366  
 Coral. *See also* Reefs  
   in Carolinian star compasses, 462, 463, 467  
   in Carolinian star path compass, 465  
   in Kiribati mapping devices, 485 n.105  
   in Oceanic maps drawn in sand, 453, 457  
   Oceanic maps in, 443  
 Cordillera Blanca, 271  
 Cordillera Real, 260

- Cords, 428, 429
- Coricancha (Temple of the Sun), 285  
and astronomy, 286 n.133  
and *ceque* system, 286  
Santa Cruz Pachacuti's drawing of, 295, 296, 297
- Coriolis effect, 461 n.51
- Cormack, W. E., 73 n.79
- Corn. *See also* Maize  
native North American maps using, 68, 69, 126  
in sacred bundles, 125
- Cornmeal, 69
- Corn Tassel, 105–6, 106–7
- Coromandel Peninsula, 501
- Coronado, Francisco Vázquez de, 108, 108 n.184, 172
- Coronado Island, 112
- Coronation Gulf, 144, 152
- Corrals, 271
- Corroboree* (ceremony), 411
- Cortés, Hernán  
Culhua-Mexica map received by, 187  
map of Tenochtitlan, 194, 195, 225, 244  
and Mesoamerican military and trade maps, 228 n.123, 228–29 n.124, 229
- Corvus (constellation)  
and Carolinian navigation, 465, 474, 475  
on Carolinian star compass, 463  
and *etak*, 471  
in Navajo rock art, 65, 67  
in Navajo sandpainting, 109
- Cosmic egg, 311
- Cosmography, 8, 538, 541. *See also* Cosmology
- African, 15–16, 25–30
- Andean  
Bennett Stela and, 281–82  
caiman in, 272–73  
and mapping rites, 269–70  
Nasca, 277  
Nazca geoglyphs and, 276  
on Santa Cruz Pachacuti's drawing, 295  
Taypikala and, 279–80  
Tello Obelisk and, 272–73  
on wall at Coricancha, 295
- Australian Aboriginal paintings, 368–71
- Eurasian Arctic and Subarctic, 329, 332–37, 338, 339, 348
- Mesoamerican, 187  
architecture and, 197  
axes in, 201, 203, 203 n.56  
Aztec, 230  
on ceramics, 197, 232–34, 235  
cities in, 235–37  
crocodiles in, 185, 200, 201, 235  
diagram of, 229  
frequency of survival of maps related to, 196  
and map production, 197  
maps relating to, 229–37, 238  
in Codex Borgia, 232 n.132, 241  
in Codex Fejérváry-Mayer, 229–32, 234, 235–37, 237, 240, 241  
in Codex Madrid, 232, 233  
in Codex Ríos, 234, 234 nn.136–38, 237, 239, 240, 241  
Lienzo of Zacatepec 1, 209  
on mural in tomb in Río Azul, 197, 254–55  
and media and place of origin, 196  
Olmec, 183–84, 234, 234 n.140  
and religious conversion, 241  
rulers and, 234  
in screenfolds, 196  
sculptures and, 197  
spatial models of cosmos, 189  
stela at Izapa, 185, 234, 235, 254–55  
on Tizoc stone, 235, 238, 254–55  
native North American, 51, 53–54, 108–12, 117, 175, 178, 181–82  
Algonquian, 52, 69, 70, 175, 181 n.367  
Bad Heart Bull's map, 120–21, 123, 176, 179  
boundaries in, 106 n.181  
compared with South Asian cosmography, 181  
Delaware, 54, 91, 93  
on drumheads, 139, 141  
ephemeral, 180  
and Eurasian Subarctic, 171  
Inuit, 156  
in rock art, 63–66, 67  
South American, 540  
South Asian, 181
- Cosmology. *See also* Cosmography  
Andean, 274, 275, 294  
in Columbus's diary, 324  
Eurasian Arctic and Subarctic, 331  
European, 315–16  
Hawaiian, 486  
Melanesian, 423–25  
Iatmul, 426–27  
Yupno, 435–36, 437, 438, 439  
South American and Caribbean, 301, 302, 304–18, 319  
and European cosmology, 315–16  
expressed on human bodies, 303–4  
and location of settlements, 308, 313  
pictographs in, 301
- Cosmopolises, 270, 279–80
- Cossacks, 330, 330 n.5
- Costansó, Miguel, 113
- Costumes. *See also* Clothing  
and Eurasian Arctic and Subarctic cosmography, 332–33, 334  
and South American and Caribbean cosmology, 316
- Coteau des Prairies, 126–28, 179
- Cotton, William, 501
- Couclelis, Helen, 4 n.10
- Council Bluffs, 132
- Council of Chiefs (stars), *pl.*7
- Counties, 101
- Course, keeping on, 459–60
- Course setting, 455, 457–59
- Courts, ball, 227, 282
- Coves, 112, 341
- Cowan, James, 506, 506 n.62
- Cowan, Thaddeus, 95
- Coweta Indians, 103
- Crabs, 278, 288
- Crafts, 301, 319
- Cranes, 80
- Crayon  
Australian Aboriginal maps in, 387, 388, 390, 391, 392, 393, 396, 397, 398, 398, 400, 401, 410, 411, 412, 412 n.68, 413, 414, 415–16  
Australian Aboriginal paintings in, 359, 362, 368, 369  
native North American maps in, 77, 78–79, 122, 123, 162–63
- Creation, 204
- Creator, 139
- Cree Indians  
and design biting, 142  
and false geography of Northwest, 71 n.77  
and Knight's map, 149, 152  
and La Vérendrye's map, 144, 145–46  
and map of Qu'Appelle River, 129  
Mistassini birchbark message map, 84 n.108  
and scapulimancy, 141  
surveying of Charlton Island, 151–52, 154, 156, 173, 179  
York Factory Indian's map of Manitoba, 146, 147
- Creek Indians, 96
- Creeks. *See also* Water  
on Bad Heart Bull's picture map, 119, 122  
on map of Qu'Appelle River, 129  
on native North American birchbark maps, 80
- Crescents, 64, 65
- Crespí, Juan, 113
- Cribbage boards, 167
- Crocodiles. *See also* Earth monsters  
in Mesoamerican cosmography, 185, 200, 201, 235  
in Mesoamerican hieroglyph, 201
- Cronin Stream, 524
- Crosses  
Christian, 85–86 n.113  
and cosmography, 540–41  
Dogon, 27  
Eurasian Arctic and Subarctic, 336, 337  
intertropical African, 25  
Kongo, 27  
Mesoamerican, 237  
native North American, 139, 141, 181  
cross-in-circle motif, 103, 103 n.172, 105  
on *lukala* maps, 32
- Maltese  
in Codex Fejérváry-Mayer, 229, 230, 231, 232, 253  
in Codex Madrid, 232, 233, 255  
on Mesoamerican maps of Maní, 209, 210  
on Navajo star ceilings, 65  
on Nasca pottery, 277  
on Smith's 1612 map of Virginia, 71

- on Velasco map, 70 n.76  
*waninga (wanigi)*, 359
- Cross Lake, 152, 154
- Cross sections, 216
- “Cross star” (constellation), 112
- Crow Butte, 119, 122
- Crow Indians, 53, 133
- Crozet, Julien, 445
- Crummer, Thomas, 525
- Crux. *See* Southern Cross
- Cuaahquechollan, Mapa circular de, 196, 210, 212, 539
- Cuahtinchan  
 feud with Tepeyacac, 197 n.43  
 maps of  
   in *Historia tolteca-chichimeca*, 205, 206, 207, 220, 248–49, 253  
   Mapa de Cuahtinchan 1, 250–51  
   Mapa de Cuahtinchan 2, 218–19, 222, 250–51  
   Mapa de Cuahtinchan 3, 250–51  
   Mapa de Cuahtinchan 4, 250–51  
   reference, 207
- Cuahtli* (eagle), 206
- Cuba, 228, 319–20
- Cuenca, Gregorio Gonzalez de, 262, 264
- Culhuacan, 205, 218, *pl.9*
- Culhua-Mexicas, 205. *See also* Aztecs  
 Chalca rebellion against, 228  
 and Codex Boturini, 246  
 and Codex Mendoza map of  
   Tenochtitlan, 192–93, 193–94, 235–37, 252–53  
 control of Mesoamerica, 183  
 hill pictograph, 200  
 on Humboldt Fragment 2, 222  
 and itinerary histories, 218, 218 n.97  
 and Mapa de Sigüenza, 246, 249  
 and Plano en papel de maguey, 224  
 and *pochteca*, 225–28  
 and Primeros memoriales, 227, 252–53  
 Tizoc stone, 235, 238, 254–55
- Cults, Eurasian Arctic and Subarctic, 331 n.15
- Culture  
 Andean, 259  
 Māori, 495–500, 531, 531 n.125  
 native North American, 114, 179  
   on Ki oo Cus’s map, 129–30  
   native North American, 106  
   on Writing Rock, 63 n.46
- Cumberland Sound, 170 n.336
- Cummins, Tom, 258
- Cunucunuma tributary, 321
- Cups  
 engraved shell cup, 57, 103, 103 n.172, 105  
 incised on Writing Rock, 63 n.46
- Curahausi, 288
- Curlicues  
 on Mesoamerican maps, 216, 243  
 on South American and Caribbean map, 311
- Curly Head, 146, 148
- Currents  
 in Carolinian navigation, 465  
 and Marshallese sailing, 476  
 and modern canoe voyage, 461 n.51  
 in modern Carolinian navigation, 469  
 and stick charts, 485  
 and traditional Oceanic navigation, 457, 458
- Curves  
 on birchbark message map, 84–85  
 on map of Rangeley Lakes region, 85  
 on Mohave Rock petroglyph, 63
- Cuzco  
 in *ceque* system, 286 n.133  
 drawing of house of Manco Capac, 294–95  
 Guamán Poma’s map of pontifical world and, 295, 297  
 layout of, 285–86  
 puma symbol and, 285, 285 n.129
- Cuzco Valley  
 ephemeral map of, 285, 299  
 in Inka mapping rite drawn by Guamán Poma, 287  
 Inka marriage and residence rules in, 260  
 Inkas and *huacas* in, 265
- Cygnus (constellation), 95
- Dakota Sioux Indians. *See* Sioux Indians
- Damian, Doña Ana, 225
- Damian, Don Miguel, 225, 226, 252–53
- Dance, 5  
 in Carolinian navigation, 468  
 and South American and Caribbean cartography, 301, 303  
 and South American and Caribbean cosmology, 316  
 in southern African rock art, 15
- Dancers  
 latmul, 439, *pl.23*  
 on map of longhouse, 309  
 and Paracas ritual mapping, 273 n.69, 274
- Daniels, Mr., 505
- Dar es Salaam, 37
- Daribi people, 431, 434
- Dashes  
 on Hidatsa map, 133 n.255  
 on Howling Wolf’s voyage map, 119
- Dat-akal*, 40
- Dates  
 in Codex Borgia, *pl.10*  
 and Mesoamerican hieroglyphs, 199  
 on Mesoamerican maps, 198, 215, 218, 236
- Dating of rock art, 54, 61, 66
- Dauarani, 308, 317
- Davenport, William, 476, 478, 479, 485
- Davidson, Daniel Sutherland, 381
- Davidson, Donald, 2 n.3
- Davidson, George, 117
- Davies, James, 90, 90 n.131
- Days  
 on Bennett Stela, 282  
 in Codex Fejérváry-Mayer, 232, 236, 253  
 in Codex Madrid, 233, 255  
 in Codex Ríos, 234
- Dead reckoning  
 in Carolinian navigation, 469, 470–71  
*etak*, 471–75, 489  
 in Oceanic navigation and cartography, 459–60  
 Tupaia and, 449
- Dead River, 84
- Dease, Peter, 157
- Death  
 in Foi gendered map of Mubi Valley, 442  
 in Mountain-Ok mythology, 427  
 “Debriefing Explorers” (Patricia Galloway), 56 n.29
- Declination, 284, 460, 460 n.48
- Decorative maps, Eurasian Arctic and Subarctic, 344–48, 349
- Deer  
 in Eurasian Arctic and Subarctic cosmography, 337  
 on Eurasian Arctic and Subarctic maps, 341, 346, 349  
 on Illigliak’s map, 159–60 n.320  
 on map of Pequot country, 73, 179  
 on map on blazed tree, 86  
 on Ojibwa message map, 86
- Deer Creek, 118
- Deer River, 83
- Deerskin, maps on, 68, 99, 151. *See also* Skins, animal
- Deffer akal*, 40
- Degrees, in navigation, 469
- Deities. *See* Gods
- Deixis, spatial, 53 n.6, 434
- Delano Smith, Catherine, 57
- Delaware Indians, 89  
 cosmography, 54, 91, 93  
 map by compared with Beaver Indian dream map, 139 n.267  
 map of Manhattan Island by, 68  
 and maps on blazed trees, 88  
 migration story, 82 n.99  
 and Walam Olum, 7–8
- Delmarva Peninsula, 68, 69, 69 n.72
- Delphi, 29 n.31
- Democratic Republic of Congo, 27, 31, 32
- Demography, Mesoamerican, 240–41
- Denham, Dixon, 35
- Denison, Alfred, 348 n.68
- Department of Lands and Survey, Māori maps copied by, 513, 533
- Depot Island, 162
- Derevyannye planshety* (maps on wooden boards), 341
- Dermer, Thomas, 68
- Desanas  
 cartography, 320  
 origin myths, 305–6  
 and shamanistic rituals, 6
- Descripciones*, 185
- “Deserts,” 101
- Design biting, 142–43
- Designs. *See also* Motifs; Patterns; Symbols  
 Andean, 264–65, 294  
 Australian Aboriginal

- Designs, Australian Aboriginal (*cont.*)  
 importance of, 366, 384–85  
 on paintings from northeast Arnhem Land, 375–76  
 on paintings from western Cape York Peninsula, 377, 377 nn.78, 79, 379  
 on paintings from Western Desert, 379–80, 381  
 South American and Caribbean labyrinth, 331–32, 333  
 Tukano, 308–9, *pl.13*  
 Devil's Head Mountain, 132  
 Devils Tower (Bear Lodge Butte), 120, 121, 176  
 De Vorse, Louis, 95 n.152, 105  
 Dewdney, Selwyn  
 on native North American mapmaking, 83, 84 n.106  
 and Ojibwa migration scrolls, 82, 82 n.100, 181 n.366  
 Dharlwangu clan, 376  
*Dhulap*, 364 n.47  
 Diamonds  
 in clan designs from northeast Arnhem Land, 376  
 in drawing of house of Manco Capac, 295  
 on Five Nations wampum belt, 89, 90  
 on intertropical African cosmographic maps, 25  
 in Kongo cosmography, 27, 541  
 on map of Zolipa, Veracruz, 243  
 in Maya pictographs, 200 n.54  
 in Mesoamerican hieroglyph, 201  
 on Mesoamerican hill pictographs, 200  
 on Q'ero *pallay*, 266–67  
 on Qheswa *pallay*, 267  
 on Tukano cosmic fertility map, *pl.13*  
 on wampum maps, 89  
 in *wor n'su*, 435  
 Díaz del Castillo, Bernal, 187, 228, 229 n.124  
 Dibble, Charles E., 205 n.67  
*Diccionario de motul* (Maya-Spanish dictionary) (Antonio de Ciudad Real), 185 n.9  
 Dickinson, James A., 129  
 Dictionaries  
 Indian, 52  
 Māori, 494–95  
 Mesoamerican, 185, 187  
 Dieffenbach, Ernst, 496, 503, 503 n.44, 504  
 Diegueño Indians, 112  
 Diffusion grates, 478, 479 n.93  
 Dikes, 187  
*Dindi pongone*, 430  
 Diomed Islands, 159  
 Diopters, 283  
 Direction, sense of, 81  
 Directionality, 200–203  
 Directions  
 Bugi conceptions of, 488  
 cardinal (*see* Cardinal directions)  
 on Carolinian star compass, 462  
 on Cossack itineraries, 330  
 on Eurasian Arctic and Subarctic maps, 340, 342, 343  
 in kula system, 431  
 lack of Inuit concern with, 145  
 of Marshallese ocean swells, 476–77  
 on Marshallese stick charts, 479  
 in native North American cosmography, 53  
 on native North American maps, 176  
 and Oceanic mental navigation, 443  
 on Olmec cosmogram, 234  
 stars associated with, 428  
 on Tupaia's chart, 449–50  
 Dishes, Australian Aboriginal, 379, *pl.19*, 539  
 Disks  
 earth  
 in South American and Caribbean cosmology, 309–10  
 in Warao cosmology, 312, 313, 315  
 on Koryak dancing coat, 334, *pl.14*  
 on map of Bamum, 43  
 Distances, 445 n.8, 538  
 in Achuar culture, 303  
 on African maps, 36, 38  
 on Andean maps, 265, 280  
 on Australian Aboriginal mud maps, 407–8  
 in Carolinian navigation, 473–74  
 on Cossack itineraries, 330, 330 n.6  
 between earth and sun, 446  
 on Evenk shaman's costume, 333  
 Inka measurement of, 289 n.156  
 on Māori maps, 514, 518, 519  
 Māori measurement of, 495–96  
 in Melanesian song maps, 435  
 on Mesoamerican maps, 200–201  
 boundary map from Codex Xolotl, 208  
 Lienzo of Zacatepec 1, 201  
 of Zolipa, Veracruz, 243  
 on native North American maps, 176  
 by Bering Strait Eskimos, 159  
 birchbark, 80  
 by Ki oo Cus, 129–30, 161  
 lack of Inuit concern with, 145  
 by Meliki, 161  
 by Miguel, 126  
 Ojibwa message map, 86  
 by Paiutes, 113  
 sketches of St. Lawrence River obtained by Champlain, 72  
 of Susquehanna River, 76, 77  
 by Wetalltok, 165  
 in Njoya's survey of his kingdom, 42  
 Distortion. *See* Accuracy  
 Ditches, 224, 262–63, 264  
 Divination, 171  
 Djan'kawu Sisters, 371–73, 414, *pl.17*  
 Djarrakpi, bark painting of, 366, 373, 374, *pl.18*  
*Djeldjelatāe*, 482  
 Djidinja, 371  
 Djimbun, 402–3, *pl.21*  
*Djugāe*, 482  
 Dobbs, Arthur, 144–45  
 Dobell, C., 43  
 Dodge, Richard, 128–29  
 Dogons, 26, 26 n.11, 27, 540–41  
 Dogrib Indians, 143  
 Dogs  
 in Howling Wolf's ledger art, 120  
 on Ket drum, 337  
 on Mansi wooden board maps, 342, 344  
 on Tesuoke's map, 162, 164  
 Dogsleds, 161, 344. *See also* Sleds  
 "Doldrums," 476  
 Dolgan people, 336  
 Dominique (Montagnais man), 136, 138, 180  
 Dominica, 321 n.49  
 Doors  
 boat cabin, 333, 335  
 celestial, 311, 312  
 Dots  
 on African maps, 34  
 in Andean rock art, 271  
 on Australian Aboriginal maps, 390, 393  
 on Australian Aboriginal painting, 378  
 in Eurasian Arctic and Subarctic cosmography  
 on Chukchi decorated paddle, 347  
 on Dolgan drum, 336  
 on Evenk *tyngirin*, 333  
 on Sami drum, 337  
 on Eurasian Arctic and Subarctic petroglyphs, 332  
 on map of South American and Caribbean vision quest, 310  
 on Marshallese stick charts, 480, 482  
 in Maya pictographs, 200 n.54  
 in Mesoamerican hieroglyph, 201  
 in Mesoamerican hill pictographs, 200  
 on Mesoamerican maps  
 in Codex Boturini, 221  
 in Codex Madrid, 233  
 in Codex Nuttall, 215  
 in Codex Xolotl, 208  
 Lienzo of Zacatepec 1, 209  
 of Zolipa, Veracruz, 243  
 on Nasca pottery, 277  
 on native North American maps  
 by Gero-Schunu-Wy-Ha, 132, 133  
 by Howling Wolf, 119  
 by Ki oo Cus, 130, 161  
 by Lahontan, 128  
 Largo Canyon star panel, 67  
 by Meliki, 161–62  
 by Non-Chi-Ning-Ga, 135  
 Pawnee celestial chart, *pl.7*  
 by Tesuoke, 162  
 in southern African rock art, 14, 15  
 Double Point, 83  
 Dowaghanae Indians, 94  
 Dowson, Thomas A., 16  
 Dragons, 273, 339  
 Drainage, 278, 279, 344  
 Draper Island, 81  
 Drawings



- as cartography, 3, 5  
to explain Q'ero *pallay*, 267 n.38
- Dreamings (ancestral beings), 5, 392, 539, 541  
and aerial and subterranean views, 363 n.41  
Bird Woman and Two Men, 394  
and conventions of painting, 368  
and cult lodges, 376, 376 n.72  
explained, 360–61, 361 n.38  
Honey Ant Dreaming, 362  
on Mowaljarlai's map, 415  
on paintings from Western Desert, 379, 380, 381, 383  
Red Kangaroo Dreaming, 405, 408  
and rock arrangements, 411  
in rock art, 374–75  
and *Sacred Places at Milmindjarr'*, 372–73  
*Squid and Turtle Dreamings*, 371, 372  
Tjapaltjarris and, 399, 400, 401, 402  
in Western Desert paintings, 388
- Dream maps, native North American, 56, 138–39
- Drechsel, Emanuel J., 99–100 n.166
- Dresden Codex, 240
- Drewal, Henry John, 27–28 n.21
- Dröber, Wolfgang, 55, 491
- Drugs, psychotropic, 307, 310
- Drums  
on Chukchi decorated paddle, 347  
and Eurasian Arctic and Subarctic cosmography, 334–35, 336, 337  
native North American cosmographic maps on, 139, 141, 171  
South American and Caribbean, 304
- Dry paintings. *See* Sandpainting
- Dubungu, 395, 397, 400, 401
- Duck Island, 81
- Ducks, 81
- Dugast, Idellette, 42, 43
- Duho* (thrones), 317, 318
- Duifken* (ship), 414
- Dumont d'Urville, Jules Sébastien César, 419
- Dunedin (New Edinburgh), 520
- Dunmore, John, 508 n.67
- Dupuis, Joseph, 38, 38 n.67, 39
- Durán, Diego, 190
- Duryea, Chester B., 486
- Dusky Bay (Sound), 513 n.83
- Dutch West India Company, 68
- Du Tisne, Claude, 124 n.231
- Duveyrier, Henri, 38, 38 nn.69, 70
- Eagle Head. *See* Minimic, Chief
- Eagles  
in cartographic pictograph, 81  
on Mesoamerican maps  
of Cuauhtinchan, 205, 206  
of Tenochtitlan, 193, 194  
on Tello Obelisk, 272, 273  
on Writing Rock, 63 n.46
- Eaheinomauwe. *See* North Island
- Earth  
in African cosmography, 27  
in Andean cosmography, 297  
on Australian Aboriginal toa, 370  
in Eurasian Arctic and Subarctic cosmography, 333, 339  
in Mesoamerican cosmography, 229  
in Codex Ríos, 234, 236  
Maya, 200 n.54  
on stela at Izapa, 185  
on Mesoamerican maps, 216  
in native North American cosmography, 53, 109  
in South American and Caribbean cosmology, 309–10, 312, 313, 315  
symbols for, 181
- Earth lodges, 53, 54, 124, 125
- Earth monsters, 200. *See also* Crocodiles  
in Codex Borgia, 201, 240, *pl.* 10  
in Codex Fejérváry-Mayer, 231  
in Codex Kingsborough, 189  
in Codex Nuttall, 216  
on Lienzo of Zacatepec 1, 209  
on map of Zolipa, Veracruz, 243  
on Tizoc stone, 235, 238
- Earth People, 109
- Earth pigments, maps in, 411
- Earthquakes, 430
- Earth sculptures, 541
- East  
on Bernus's maps, 39–40  
in Mesoamerican cosmography, 203, 229  
in Codex Fejérváry-Mayer, 230, 231  
in Codex Madrid, 233  
in tomb in Río Azul, 234  
in Navajo sandpainting, 110
- East Cape, 501
- Easter Island (Rapa Nui)  
difficulties in navigating to, 461  
European discovery, 445  
as part of Polynesia, 445  
settlement, 420
- Eastern Abenaki Indians. *See* Abenaki Indians
- Eastern division Sioux Indians, 58
- Eastman, Seth, 79, 80, 81
- East Polynesia, 420
- East River, 68
- Eating, 440, 441
- Ebon Island, 480, 482, 484
- Ecatepec (Hill of the Wind God), 221
- Ecology  
Tukano, 308–9  
and Warao cosmology, 308, 311–13, 313
- Economy  
Andean, 259–60  
of Arctic and Subarctic Eurasia, 329
- Ecosystems, 119–20, 122, 179
- Edinburgh Museum, 491
- Edock, 454 n.36
- Eelpout, 86
- Eels, 510, 510 n.72, 514
- Effigy mounds. *See* Mounds
- Effigy Mounds National Monument, 95
- Eggs, cosmic, 311
- Egrets, 316
- Ehecatl-Quetzalcoatl, 239–40
- 8 Calli, 221
- 8 Crocodile, 203
- E Kehu, 496–97 n.15, 498–99
- Eland, 15
- Elcho Island, 397
- El Dorado, 315–16, 322  
Raleigh and, 319, 322 n.51, 323, 324–25  
Tupi-Guarani and, 313
- El Duraznito, 271
- Elements  
on al-Bīrūnī's diagram, 29  
in Mesoamerican cosmography, 236
- Elevation  
depiction of buildings in, 194  
in southern African agriculturalist engravings, 19
- 11 Tecpatl, 221
- 11 Tiger, 203
- Eliade, Mircea, 538
- Elk, 331, 332, 339, 344
- Elkablet*, 39
- Ellesmere Lake. *See* Waihore
- Ellipses, 95
- E Mare, 503, 503 n.45, 504
- Encampments. *See* Camps
- Enclosures  
in Purgatoire River petroglyph, 66  
on Sel'kup fishing drawing, 346
- Endeavour* (ship), 446, 501 n.40, 505 n.56, 530  
on Māori map of South Island, 513, 513 n.83, 514  
Toiawa and, 500–501, 500 n.37  
Tupaia pilots, 448–49, 450, 451
- Enemies, location of, 317
- Enewetak (Eniwetok), 475 n.81, 480, 484
- England. *See also* Britain  
Chickasaws and, 101  
maps of New Zealand sent to, 513  
Pacific explorers from, 445  
and possible trading post along Susquehanna River, 77  
settlements in North America, 67, 103  
and South America, 324  
trade rivalry with France, 99 n.163, 105, 180
- Engravings  
rock, 374–75 (*see also* Rock art)  
on shell cup, 57  
on walrus tusks, 166
- Eniwetok. *See* Enewetak
- Enkachan, Nicolai, 340
- Entotto (Intotto), 47
- Environment  
of Arctic and Subarctic Eurasia, 329  
Māori and, 530
- Eopi, 503, 503 n.49
- Ephemeral maps, 172  
Andean, 269–70, 285, 287, 299  
Evenk, 339  
native North American, 51, 67–71, 72, 113–14, 128–29, 143–45, 159, 175, 180 (*see also* Sandpainting)
- Epidemics, 240

- ε Orionis, 306  
 Egalugtormiuts, 157  
 Equator, 303, 306, 486  
 Erhardt, Jakob, 41  
 Erk-sin'-ra, 157, 158  
 Erskine site, 17, 19  
 Escarpments, 146, 179  
 Escobar, Francisco de, 108–9  
 Esino (Khakasiya), sepulcher of, 332, 333  
 Eskers, 146  
 Eskimos. *See also* Inuit; *and specific tribes*  
   Alaskan, 171  
   Asian, 171, 329  
   and bleached sealskin, 348 n.68  
   and decorated canoe benches, 346, 348  
   and decorated paddles, 345  
   and vertical perspective, 340 n.42  
 Española. *See* Hispaniola  
 Espinosa, Pedro, 129  
 Essequibo River, 323, 324  
 Estanques (springs or reservoirs), 262, 297  
 Estates, Australian Aboriginal, 395, 397, 398, 399, 400, 401  
 Esteban, Hernando, 126, 127  
 Estuaries  
   on Māori maps, 531 n.125, 536  
   on native North American maps, 178  
 Etak dead reckoning, 471–75, 489  
 Eteekurik (wolf) (constellation), 112  
 Ethiopia  
   Beke's map of, 41  
   Ras Makonnen's map of, 45, 47, 48  
   schematic mapping from, 28–30  
 Ethnic groups, 47  
 Ethnic origin, 311  
 Ethnographers and ethnography  
   cosmographies drawn for, 336–37, 338, 339  
   and Evenk cartography, 340  
   and interest in native North American mapping, 55  
   and southern African rock art, 13  
 Etobicoke River, 77  
 Eurasia, Arctic and Subarctic  
   maps of  
     Amur estuary, 339  
     by Antonov, 340  
     Chukchi wooden board maps, 341–42, 343  
     by Enkachan, 340  
     Gilyak kingdom, 339  
     Kurile Islands, 338–39  
     Maya River and Sea of Okhotsk, 339 n.36  
     reference, 328  
     Russia, 339, 340 n.36  
     Russian Arctic, 330 n.8  
     Tartary, 330  
   traditional cartography, 329–49  
     cosmographical and celestial maps, 332–37, 338, 339  
     evidence of mapping in prehistory, 330–32, 333  
     terrestrial mapmaking and maps, 338–48, 349  
 Euro-Americans  
   in late twentieth-century Inuit art, 169  
   native North American contact with, 66–67, 168  
   and native North American mapping, 112–13, 121, 123, 125–28, 149, 155, 157–59, 172  
 Europe and Europeans  
   African influence on cartography, 38–41  
   city plans, 225, 244  
   early charts of Oceania drawn by, 446–54, 455, 456–57  
     Caroline Islands, 451–53, 454, 455  
     by Kotzebue, 453–54, 456–57  
     by Tupaia, 446–51  
   early maps of South America and Caribbean, 313  
   and exploration of South America, 324  
   and indigenous South American and Caribbean land claims, 321 n.49  
   influence on African mapmaking, 24, 33–37, 41–48  
   influence on Australian Aboriginal mapmaking, 353 n.2, 389  
   influence on Mesoamerican cartography, 184, 189, 212, 212 n.83, 215, 225  
   Inuit and maps from, 157–59, 180  
   knowledge of Eurasian Arctic and Subarctic, 330  
   ledger of trade with Inkas, 293 n.173  
   and Māori cartography, 493–536  
   map of Tenochtitlan from, 194, 195  
   map usage of, 182  
   maritime explorers and perspective, 363 n.42  
   and native North American cartography, 52, 69, 143–54, 155, 156, 178–79  
   and Neo-Eskimos, 171  
   penetration of Remote Oceania, 444–46  
   shown on bleached sealskin map, 349  
   shown on Māori map of South Island, 514  
   and South American and Caribbean cartography, 301, 302, 302 n.2, 322–25  
   stylized political boundaries on maps of, 285 n.130  
   and traditional mapping, 541  
 Evenk people, 348  
   and birchbark maps, 342  
   and blazed trees, 343, 345  
   maps by, 339–40  
   shamans' costumes, 333, 334  
   *tyngirin* from, 333, 335  
 Even people, 334  
 Ewi, 503, 503 n.49  
 Exhibitions of native North American cartography, 56, 56 n.26  
 Exploration, 324  
 Faces, 195  
 Fais Atoll, 452, 467, 468  
 Fallen Star, 121  
 Falls, 137–38, 149. *See also* Waterfalls  
*Faluch*, 470 n.74  
 Famines, 430  
 Fan, 36  
 Fanuankuwel, 468  
 Fanur, 470  
 Fanúwánkúwen, 470  
 Faraulep, 466  
 Farfán de los Godos, Marcos, 108, 113  
 Farming. *See* Agriculture  
 Farnham, Edwin, 63 n.46  
 Father Sky, 109, 111  
 "Father Sky" (Franc J. Newcomb), 109  
 Fava beans, map using, 319–20  
 Fayirhap, 470  
 Feast of the Dead, 270  
 Feather River Maidu Indians, 115  
 Feathers, 215, 238, 316  
 The Feathers. *See* Ac ko mok ki  
 Feldman, Robert A., 284 n.121  
 Felines, 288  
 Felix Harbour, *pl.8*  
 Fell, Barry, 62 n.46  
 Fellow, Abe, 138–39  
 Fences  
   on Australian Aboriginal mud maps, 408  
   on Australian Aboriginal vineyard plan, 409–10  
   on petroglyphs from Nevada, 61, 62  
   on Sitting Rabbit's map, 124  
   in Yupno worldview, 436  
 Ferland, abbé, 136  
 Fernandeño group, 113  
 Ferns, 513  
 Fernsticks, 501, 503, 531  
 Fertility  
   Chuquito rites, 299  
   cosmic, *pl.13*  
   Nazca geoglyphs and, 277  
 Festivals, 270  
 Fibers, banana, 462, 463  
 Fidler, Peter  
   native North American maps solicited by, 129–32, 133  
   and Nay hik til lok's map, 166, 166 n.326  
   and York Factory Indian's map of Manitoba, 147  
 Field Museum of Natural History, Chicago, 124, 125, 490  
 Fields  
   in Aitiij cosmology, 318  
   on Andean maps  
     by Guamán Poma, 262  
     of Lambayeque River, 262, 264  
     Nasca pottery, 277–78  
     of Q'ero agricultural landholdings, 263  
     Qheswa *pallay*, 267, 269  
   in Andes, 257  
   on Mesoamerican maps, 225, 226, 253  
   Mesoamerican pictographs for, 200  
   at Tiwanaku, 283  
   "Fight and Flight" (scene), 14–15, 538, *pl.1*  
 Fighting, 349  
*Figura mitológica* vessels, 277–78  
 Fiji

- settlement, 419, 420  
 on Tupaia's chart of Polynesia, 450, 451
- Finger paintings, 14, 391
- Finisterre Mountains, 437
- Fiordland, 508, 530, 533
- Fire, 142 n.280
- Fire (Australian Aborigine ancestral being), 376
- First Man, 312
- First Slender One (constellation), 65, 67
- First Woman, 312
- Firth of Thames, 501
- Fish. *See also* Milkfish  
 in Eurasian Arctic and Subarctic cartography, 346  
 on Chukchi decorated paddle, 347  
 on Ket drum, 337  
 Orochi, 339  
 in native North American cartography in cartographic pictograph, 80  
 on Illigliak's map, 159  
 map of "Yurok idea of the world," 181  
 on Teseuke's map, 162  
 in Nazca geoglyphs, 276  
 in Oceanic navigation  
 Carolinian, 466  
 Puluwar Atoll, 468  
 triggerfish, 467, 468, 469, 470  
 on Plano en papel de maguey, 224  
 on *Sacred Places at Milmindjarr'*, pl.17  
 in South American and Caribbean cartography, 303, 309, 315
- Fish bait, 310
- Fishing  
 in Arctic and Subarctic Eurasia, 329  
 on Eurasian Arctic and Subarctic maps, 343–44, 346, 348  
 in Eurasian Arctic and Subarctic rock art, 331  
 in Foi gendered map of Mubi Valley, 442  
 Māori locating of grounds, 496, 497  
 on Mesoamerican maps, 244  
 and native North American cartography, 135, 173, 179  
 South American and Caribbean, 309, 313, 315
- Fishing stations, 159
- Fish rack constellation, 308, 320
- Fish scoops, 344, 346
- Fish trap constellation, 305, 308, 320
- Fish traps, 344, 345, 346
- Fitzroy River, 390, 391
- Five Nations belts, 89, 90
- 5 Wind, 215, 216
- Fjords, 168, 169, 176, 531 n.125
- Flagpoles, 119
- Flaherty, Robert Joseph, 155, 164, 165, 165 n.325
- Flax stalks, 525
- Flegel, Eduard Robert, 40–41
- Fleming, David, 277 n.93
- Flours-de-lis, 128
- Flint, 493
- Floods, 487
- Florida  
 Indians sent to confinement at Fort Marion, 118  
 on Lamhatty's map, 96  
 omitted from Chickasaw map, 101  
 de Soto's map of, 95, 96, 97–98
- Flowers, 29
- Foi people, 441–42
- Folklore, Eurasian Arctic and Subarctic, 330
- Fond du Lac, 83
- Food  
 and Gawan mapping, 429 n.23  
 in Huli sacred geography, 430  
 on native North American maps, 73
- Foolish Lunar Younger Brother, 273
- Foothills, 61, 132. *See also* Hills
- Footprints  
 on Mesoamerican maps, 198  
 in Codex Borgia, pl.10  
 in Codex Boturini, 221  
 in Codex Florentine, 228  
 in Codex Kingsborough, 189  
 in Codex Xolotl, 206–7, 210, pl.9  
 of Cuauhtinchan, 205, 206  
 in Historia tolteca-chichimeca, 210, 220  
 Humboldt Fragment 2, 222  
 Lienzo of Zacatepec 1, 203  
 Mapa de Sigüenza, 219  
 Metlatoyuca, 189  
 Plano en papel de maguey, 224  
 of Tetlitzaca, 246  
 on Nivkhi ritual vessels, 344, 347
- Foraging, 313
- Forests. *See also* Trees  
 on Māori maps, 531 n.125  
 ambush map, 513  
 by Rakiraki, 520, 534  
 map of boundaries with tundra in northern interior, 149  
 on Melanesian maps, 430  
 in Mesoamerican landscape painting, 256  
 on native North American maps  
 birchbark, 80  
 by Jimmy Anderson and Curly Head, 146, 148  
 by Ki oo Cus, 129  
 by Meatonabee and Idotlyazee, 146  
 in New Zealand, 530  
 on Subarctic Indian maps, 178
- Forma, 1–2
- Forster, George, 448 n.19
- Forster, Johann Reinhold, 447–49, 450, 450 n.24
- Forsyth Lake. *See* Wairewa
- Fort Berthold, 133 n.255
- Fort Buford, 133 n.255
- Fort Churchill, 178  
 on Auld's map, 166  
 on Knight's map, 149  
 on Meatonabee and Idotlyazee's map, 146, 151  
 on Nay hik til lok's map, 166, 166 n.326
- Fort Detroit, 88
- Fort Ellice, 129
- Fort Loudon, 88 n.120
- Fort Marion, 118
- Fort Pitt, 88
- Forts  
 on Delaware map on blazed tree, 88, 88 n.120  
 Māori, 493  
 on native North American pictorial map, 117  
 on Piedra Cansada, 288
- Fort Selkirk, 115, 116–17
- Fort William, 149, 151, 154, 155, 177
- Fountains, 288
- "Four Corners" region, Navajo star ceilings in, 65–66
- 4 Wind, 208 n.72
- Foveaux Strait, 530  
 on Hone Tūhawaiki's maps, 516, 517, 533, 534
- Fox, William, 496–97 n.15
- Fox dark cloud constellation, 279
- Foxes, 279
- Fox Indians, 136
- Fox traps, 346
- Frake, Charles O., 464–65
- France  
 and Aikon Aushabuc's gestural map, 68–69  
 and Cheyennes, 120  
 and Chickasaws, 101, 103, 173  
 and Iroquois, 77  
 and map of Bamum, 43, 43 n.82  
 Pacific explorers from, 445  
 and Pawnees, 124 n.231  
 settlements, 67, 103, 117  
 trade rivalry with England, 99 n.163, 105, 180  
 and wampum belts, 89–90
- Francisca, Pedronilla, 225
- Franklin, John, 143–44
- Fraser River, 114
- Frémont, John C., 106 n.183, 113–14
- French River, 77 n.81
- Frogs, 288, 319
- Frontal perspective, 228, 265
- Frozen Strait, 164
- Fruit, 185
- Fulße of Banyo, 43
- Fumban, 42, 43, 45, 46
- Fundação Nacional do Índio (FUNAI), 302
- Furop, 470
- Fur trade, 132, 177 n.359, 180, 330, 330 n.6. *See also* Trade
- Fury and Hecla Strait, 166, 178
- Futa Jallon, 35
- Gabrielino Indians, 113
- Gaferut, 467, 468, 470
- Gaich (Masts), 470 n.74
- Gale, Fay, 364
- Galice Indians. *See* Gar'isi Indians
- Galleries, 272
- Galliput (Galiput, Gyallipert), 409
- Galloway, Patricia, 56 n.29
- Galveston Bay, 97
- Gambali, 376 nn.73, 74

- γ Aquilae, 464, 465, 471  
 Ganambarr, Larrtjannga, 403, 404  
 Garcia, Rubén, 278 n.94  
 Gardens  
   and cartography, 325–26  
   on Melanesian maps, 430  
   Paracas polychrome mantle and, 273  
 Gari'si (Galice) Indians, 115  
 Garlake, Peter, 17  
 Garrison, Tom, 479 n.93  
 Gaspé Peninsula, 79–80  
 Gates, 288  
 Gawa, 427 n.14, 429 n.23  
 Geary, Christraud, 44 n.90  
 Gedaref, 47  
 Geertz, Clifford, 9, 442  
 Ge'ez, 28, 30  
 Gell, Alfred, 363  
 Gemini (constellation), 121, 237  
 Gender. *See also* Women  
   in Melanesian cosmography, 431, 434  
   in Melanesian geography, 431, 433  
   and Melanesian mapping, 440–42  
   and Oceanic navigation, 455  
   Santa Cruz Pachacuti's drawing of Cori-  
   cancha and, 295  
 Genealogies  
   as Melanesian maps, 428  
   in Mesoamerican historical writing, 215  
   on Mesoamerican maps  
     of Amoltepec, 214, 240–41  
     cartographic histories, 204, 215  
     Codex Meixueiro, 251  
     Don Miguel Damian's property map,  
     226  
     Lienzo of Coixtlahuaca 2, 251  
     Lienzo of Ihuitlan, 251  
     Lienzo of Tequixtepec 1, 251  
     Lienzo of Tlapiltepec, 251  
     Lienzo of Tulancingo 1, 251  
     Lienzo of Zacatepec 1, 203, 208  
     Metlatoyuca, 184, 189, 249  
     of Teozacoalco, 212  
 A *General Chart Exhibiting the Discoveries  
 Made by Capt'n. James Cook*  
 (Henry Roberts), 508 n.64  
 Genitalia  
   on Bahacecha map, 108  
   depicted on Melanesian shields, 431, 432,  
   433  
   on rock of Nyi, 314  
 Geoglyphs, Nazca, 6, 275–77, 297  
 Geographical orientation, Māori, 496–98  
 Geography  
   Andean conceptions of space and, 258–70  
   on Arctic and Subarctic Eurasian maps,  
   329  
   and interest in native North American  
   mapping, 55  
   *khipus* and, 290, 293  
   on *lukala* maps, 32  
   on map in Codex Kingsborough, 189  
   Mesoamerican pictographs for, 198, 200  
   southern African rock art and, 15  
   Tiwanaku and, 280  
 Geological Survey of Canada, 152  
 Geomancy, 271  
 Geometric designs  
   in Australian Aboriginal cartography,  
   354–55, 359  
   on intertropical African cosmographic  
   maps, 25–26  
   on *lukala* maps, 32  
   and native North American mounds, 95  
   Nazca geoglyphs and, 275  
   on Piedra Cansada, 288  
   on Tukano petroglyphs, 308–9  
 Geometry, 262–65, 266  
   native North American maps and,  
   176–78  
 George III, 77, 79  
 George, Mimi, 455  
 Georgi, Jacob, 339  
 Georgian Bay, 77 n.81  
 Gê peoples, 301, 311  
 Germans  
   and mapmaking in Bamum, 41, 42 n.77  
   and Carolinian traditional navigation,  
   462  
 Gero-Schunu-Wy-Ha, 132–33, 134, 135,  
 180  
 Gesso, maps using, 195–96, 248–49  
 Gestures  
   as maps, 3  
     Mesoamerican, 220–21  
     Micmac Indian, 52, 68–69  
   transmission of information through, 322  
 Gewertz, Deborah B., 436  
 Ghadāmis, 36–37  
 Ghar, 36–37  
 Gifford Stream, 524  
 Gift exchange  
   and Iatmul shell ornaments, 439  
   in Melanesia, 423, 429–31  
 Gilbert Islands. *See* Kiribati archipelago  
 Gill, William Wyatt, 458–59  
 Gillies, Thomas Ballantyne, 504 n.50  
 Gilyak (Nivkhi) kingdom, 339  
 Gimma (Jima), 47  
 Gisaro ceremony, 434  
 Gisborne. *See* Tūranganui  
 Gitua village, 428  
 Glaciation, Wisconsin, 146  
 Gladwin, Thomas  
   and *etak* dead reckoning, 471, 472, 474,  
   475  
   and traditional Carolinian navigation,  
   443, 469  
 Glass, John B., 195 n.37  
 Glen, James, 94  
 Global positioning systems, 469  
 Glowczewski, Barbara, 363 n.41  
 Gnacsitare Indians, 126–27 n.241, 128  
 Goatskin, 91 n.133  
*Gobierno* (colonial jurisdiction), 244  
 Gobir, 35  
 Goddesses, 310, 337. *See also* Gods  
 Godefroy Collection, 490  
 Godfrey, Edward Lee, 514, 514 n.86  
 God of origin, 310, 312  
 Gods. *See also* Goddesses  
   Andean, 277, 278, 281  
   Mesoamerican, 225, 227  
   in Mesoamerican cosmography  
     in Codex Borgia, 232 n.132, *pl.10*  
     in Codex Fejérváry-Mayer, 231, 232,  
     232  
     in Codex Madrid, 233  
     in Codex Ríos, 234, 236  
     on Maya plate, 234  
   in Mesoamerican landscape painting, 256  
   on Sami drum, 337  
   in South American and Caribbean  
   cosmology  
     Aiti'i, 318  
     Warao, 310, 312, 313, 315  
     Venus as, 237, 239–40  
 Goetz, Delia, 237 n.148  
 Goetzmann, William H., 445  
 Göhring, M., 42  
 Gojab River, 35, 41  
 Gold, 523  
   in Columbus's diary, 324  
   Euro-Americans looking for, 112–13  
   La Vérendrye's inquiries regarding, 146  
   mining, 126  
   in Navajo sandpainting, 110  
   in South America, 324  
 Golden Bay, 525, 526  
 Gold Lake, 113  
 Goldstein, Paul, 282  
 Golovnin, V. M., 338–39  
 Gómara, Francisco López de, 229 n.124  
 Gomes, Estavão, 68  
*Gomo* (sources), 431 n.32  
 Gondatti, N. L., 341  
 Gongujuma, 398 n.34  
 Goodenough, Ward Hunt, 464, 465, 466,  
 472  
 Goodlake, Edward, 348 n.68  
 Goodman, Nelson, 9  
 Goody, Jack, 6  
 Goomadeer River, 395, 398, 399  
 Gorges, Ferdinando, 90  
 Goromuru River, 402–3, *pl.21*  
 Gosling, L. A. Peter, 488 n.116  
 Gosnold, Bartholomew, 68  
 Gould, Peter, and Rodney White, 4  
 Gourd rattles, 65, 311  
 Gourds  
   Andean, 262, 274, 275  
   in Hawaiian navigation, 486–87  
   symbolizing winds, 459, 487 n.111  
 Gove Peninsula, 397–98  
 Graham, Robert, 525  
 Grampuses, 347  
 Granaries, 19, 22  
 Grand Bay, 151  
 Granite shaft, 272  
 Grant, Campbell, 66  
 Graphic maps, Melanesian, 435–38, 439,  
 440, 441  
 Grasslands, 129  
 Grates, diffusion, 478, 479 n.93  
 Graticules, 176, 178

- Graves. *See also* Burials; Tombs  
 Australian Aboriginal, 354, 358  
 Eurasian Arctic and Subarctic, 331–32
- Gray, Fred, 414
- Gray, W. J., 411
- Grease, 176. *See also* Bear grease
- Great Barrier Island, 500, 501
- Great Basin, 108–9, 113–14
- Great Bear, 95. *See also* Ursa Major
- Great Bear Lake, 144
- Great Britain. *See* Britain; England
- Great Caiman, 272–73
- Great Caiman of the Sky, 272, 273
- Great Caiman of the Water and Underworld, 272, 273
- Great Committee of Rotorua, 528
- Greater Antilles, 313, 315
- Greater Australia, 419
- Great Father, 53
- Great Indian River. *See* Thelon River
- Great Khan, troops of, 324
- Great Lakes, 77, 103. *See also specific lakes*
- Great Ocean of Kiwa in the West, 497
- Great Plains, 119–20, 122, 136. *See also* Plains
- Great Slave Lake, 144
- Great triggerfish. *See* Triggerfish
- Great Washing ceremony, 125
- Great Zimbabwe tradition, 17
- Greece, 29 n.31, 539
- Green, Roger, 419
- Green Lake, 268. *See also* Lake Rotokakahi
- Greenland  
 Ammassalik wooden maps, 167–68, 169, 176  
 Inuit perception of European maps of, 159  
 maps of, 167–68, 169
- Greenstone, 234, 234 n.140, 493
- Gregor, Thomas, 320–21
- Grey River, 498
- Griaule, Marcel, 26, 26 n.11, 27, 28
- Gridiron town plans, Mesoamerican, 244, 251
- Grids  
 in Andean cartography, 294, 295, 297  
 in Andean spatial organization, 262, 262–63, 263 n.25, 264  
 on map of Tetlitzaca, 246  
 on native North American maps, 124, 176, 178  
 on Sami drum, 337
- Grieder, Terence, 63, 176, 181
- Griffin-Pierce, Trudy, 109, 110 n.195
- Griffiths Stream, 524
- Grolier Codex, 240
- Gros Ventre Indians, 133
- Ground paintings. *See* Sandpainting
- Guam, 467, 468, 470
- Guamán Poma de Ayala, Felipe, 285  
 drawing of Andean planting season, 262–63, 264  
 on Inka road system, 289, 290  
 on *khipus*, 290, 291, 293  
 map of Inka empire, 295–96, 298–99  
 representation of pontifical world, 295, 297, 299  
 and *tocapu* designs, 294  
 use of European conventions, 294
- Guanín* (magic alloy of gold and copper), 313, 315, 324
- Guatemala, 183, 195 n.37, 196
- Gua village, 436
- Guayupia* (Land without Evil), 313, 322
- Gudkova, I. S., 343
- Gueacalá, 187
- Gugadja language group, 395, 395 n.26, 397
- Guiana, 323
- Gulf Coast  
 on Chickasaw map, 100  
 on Cortés's map of Tenochtitlan, 195  
 on map of Motecuhzoma's domain, 228, 228 n.121  
 on "Nations Amies et Ennemies des Tchikachas," 103  
 de Soto's map of, 95, 96, 97–98
- Gulf of Boothia, 152, *pl.8*
- Gulf of Paria, 324
- Gulf of St. Lawrence, 136
- Gull Bay, 151
- Gull River, 151
- Gumadir River, 395, 398, 399
- Gumatj clan, 376
- Gunggoilma, 398 n.34
- Guns, 169. *See also* Weapons
- Gupapuyngu clan, 358
- Gurumuru Dhalwangu, 402–3
- Gurumuru River, 402–3, *pl.21*
- Guzmán, Eulalia, 184, 184 n.6, 191
- Gyallipert, 409
- Gypsum, 370, 385
- Haast, Julius von, 505 n.52, 523, 523 n.103, 524
- Haast Pass. *See* Tioripātea
- Haburi, 308, 313, 317
- Hachuring  
 on Māori maps, 514, 520, 531 n.125  
 on Toongalook's map, 170
- Haile, Bernard, 65
- Haile Mariam, 38 n.68
- Haiti, 318
- Hakatere River. *See* Ashburton River
- Hakluyt, Richard, 68
- Halach uinic* (high lord), 209
- Halchidhoma Indians, 108, 172, 177
- Halcombe, Henry, 525 n.115
- Hale, Herbert M., 356
- Hale, Horatio, 449–50, 450 nn.23, 24
- Haley, Harold B., 184–85 n.6
- Halifax, Nova Scotia, 52, 68–69
- Hall, John, 523
- Halpern, Michael, 489
- Halswell, Edmund Storr, 494, 494 n.7, 513, 514
- Hambruch, Paul, 478
- Hamilton Inlet, 136
- Hamlin, Elijah L., 86
- Hammerton, William, 101
- Hanan* (upper) Cuzco, 286, 288, 297
- Handprints, 14
- Hanson River, 406–7
- Hapū* (subtribe), 497, 503 n.45, 528, 529, 530
- Harbors  
 on Māori maps, 531 n.125  
 by Hone Tūhawaiki, 516, 517, 533, 534  
 of South Island, 513, 513 n.82, 514  
 Māori toponyms for, 493  
 on native North American birchbark maps, 80
- Hare Indians, 143
- Harlem River, 68
- Harley, J. B., 3, 35, 56
- Harman, Richard James Strachan, 523
- Harman Pass, 523
- Harper River, 524
- Harpoons, 347
- Harrington, J. T., 62 n.45, 65
- Harrington, John, 47
- Harrison, Simon, 423
- Harvard College, 74
- Harvey, P. D. A., 193
- Harwood, Frances, 427
- Hatun initi* (sun at noon motif), 268
- Hau-raki. *See* Thames
- Hauraki Gulf, 501, 525
- Hauroko, 505–6, 506 n.62
- Hausa states, 35, 38
- Hawai'i  
 gourds as navigational instruments from, 486–87  
 legendary wind gourd from, 487 n.111  
 modern canoe voyage to Tahiti from, 461 n.51, 468, 474  
 as part of Polynesia, 445  
 "sacred calabash" from, 485–86  
 settlement of, 420
- Hawaiian Board of Missions, 491
- Hāwea. *See* Lake Hawea
- Hawikuh, 108, 172
- Hawkes Bay, 530
- Hay, A. W., 409
- Haysquisrro, 295 n.180
- Headdresses, 333, 333 n.21, 334
- Headlands  
 on Hone Tūhawaiki's map, 516  
 on Māori map of South Island, 514  
 Māori toponyms for, 493  
 on native North American maps, 168, 178
- Heads, severed  
 on Nasca pottery, 277–78, 278 n.94, 297  
 on Paracas gourd, 274  
 on Paracas polychrome mantle, 273  
 as soul motif, 299
- Headtaking, 273, 273 n.71
- Health  
 in Eurasian Arctic and Subarctic cosmography, 339  
 Mesoamerican epidemics, 240

- Heaphy, Charles  
and E Kehu, 496–97 n.15, 498–99  
and E Mare, 503  
and Te Horeta te Taniwha, 500, 501, 501  
n.39
- Hearne, Samuel, 146, 146 n.291, 149
- Heart Butte, 132
- Hearths, 232, 234
- Heart Mountain, 132
- Heaven of monkeys, 339
- Heavens  
in Andean cosmography, 272  
in Mesoamerican cosmography, 234  
n.138, 235  
in Codex Ríos, 236  
on Lord Pacal's sarcophagus lid, 235  
on Maya plate, 233
- Heckewelder, John Gottlieb Ernestus, 91,  
93
- Heikai Pomare. *See* E Mare
- Heizer, Robert Fleming, 61
- Hell Gate, 68
- Hennepin, Louis, 99 n.163
- He noti* (low saddles), 518
- Henriksen, Georg, 142
- Henry, John Joseph, 84
- Henry Lake, 62
- Heraldry, 295
- Hercus, L. A., 383
- Herding, reindeer, 329, 348
- Herring, Elbert, 129, 129 n.249
- Herschel Island, 157
- Hesperus Peak, 110
- Hester, Thomas R., 61
- Heuglin, Hofrath von, 29–30
- Heuheu Tukino II, Te. *See* Te Heuheu  
Tukino II
- Hexagons, 306, 308
- Hidatsa Indians, 133 n.255
- Hieroglyphs, Mesoamerican, 183, 185,  
198–99  
on maps, 193, 242–43  
of Amoltepec, 214  
of Atlatlahuacan, Morelos, 242  
Aztec military maps, 228  
cartographic histories, 215  
in Codex Boturini, 218, 221  
in Codex Kingsborough, 189  
in Codex Madrid, 232, 233, 255  
in Codex Nuttall, 215 n.92  
in Codex Vienna, 218  
in Codex Xolotl, 205, 206–7, 208, *pl.9*  
of Cuauhtinchan, 206  
of Don Miguel Damian's property, 225,  
226  
in Historia tolteca-chichimeca, 220, 247  
Humboldt Fragment 2, 222  
Lienzo of Zacatepec 1, 203, 207–8,  
209, 213  
Mapa de Santa Cruz, 244  
Mapa de Sigüenza, 218  
Metlatoyuca, 184, 184 n.6, 189  
Plano en papel de maguey, 187, 224  
of Tenochtitlan, 193, 194  
of Tezacoalco, 212  
of Tetlitzaca, 246  
on tomb in Río Azul, 234  
Maya, 209, 235  
as place-names, 190–91, 204, 244
- Hikurangi Channel, 511
- Hilinama (month), 486
- Hillier, H. J., 383 n.98, 385
- Hill-in-profile pictographs  
on Ki oo Cus's map, 132  
on Lewis and Clark's transcripts of  
Indian maps, 114, 114 n.214  
on Meatonabee and Idotlyzee's map,  
146
- Hills. *See also* Foothills  
in Andean cartography  
map of Cuzco Valley, 285  
Nasca pottery, 278  
Nazca geoglyphs and, 276, 276 n.80  
on Australian Aboriginal maps, 389, 390,  
399, 407  
on Australian Aboriginal paintings, 367  
in Mesoamerican landscape painting, 256  
on Mesoamerican maps, 198  
of Amoltepec, 214  
of Atlatlahuacan, Morelos, 242  
in Codex Kingsborough, 189  
Mapa de Santa Cruz, 244  
pictographs for, 199–200, 203, 205,  
206, 209, 219, 231, 243, 244,  
244, 246  
of Tezacoalco, 212  
on native North American maps  
Bering Strait Eskimo map, 159  
Comanche ephemeral, 128–29  
by Lahontan, 127–28  
Map Rock petroglyph, 62  
on route map between Njoya's farm and  
Fumban, 42  
on Te Ware Korari's map, 535  
on Tukano petroglyphs, 308–9
- Hind, Henry Youle, 136, 138
- Hind, William George Richardson, 138
- Hin-mah-too-yah-lat-kekht. *See* Joseph,  
Chief
- Hipana, 319, 320
- Hiquiligjuaq, 5–6
- Hirst, William, 498
- Hispaniola, 319–20
- Historia chichimeca* (Fernando de Alva  
Ixtlilxochitl), 190
- Historia tolteca-chichimeca*  
boundary pictographs in, 246–47  
footprints in, 210  
maps of Cholula in, 215, 225, 252–53  
maps of Cuauhtinchan in, 205, 206, 207,  
220, 248–49  
palace complexes on maps in, 225 n.115  
rectangular maps in, 196
- Historical and Statistical Information*  
*respecting the History, Condition,*  
*and Prospects of the Indian Tribes*  
(Henry Rowe Schoolcraft), 79, 80,  
81
- Historical Atlas of New Zealand*, 494, 494  
n.7
- The *Historie of Travaile into Virginia Bri-*  
*tannia* (William Strachey), 90  
n.131
- Histories  
cartographic (*see* Cartographic histories)  
itinerary (*see* Itinerary histories)
- Historiography  
of Mesoamerican cartography, 189–91  
of native North American maps, 55–56
- History  
*ceque* system and, 286, 286 n.133  
included on Mesoamerican maps, 190  
*khipus* and, 290, 293  
and myth in Inka oral tradition, 295  
n.180
- Hoa, Hoahoa* (lay out, plan), 494–95
- Hobahi, Land of the Warao, 313
- Hobahi akari* (where the earth breaks off),  
313
- Hobson, William, 514
- Hochstetter, Ferdinand von, 510–12, 523  
n.103, 531, 535
- Hocken Library, University of Otago,  
Dunedin, 532, 534
- Hodges, Chris, 399
- Ho'evà-ho'xe'estó'o* (map), 52
- Hoffman, W. J., 113
- Hoffman, Walter James, 346 n.66, 348
- Hogans, Navajo, 53, 181
- Hogenberg, Georg, 244
- Hoggar (Ahagger) Mountains, 36–37
- Hokeo (gourd or hula drum), 486
- Hoku, 486
- Hoku hele (planets), 486
- Hoku i ka lewa a me ka lepo (stars over  
the deep ocean), 486
- Höküle'a (Arcturus), 460
- Höküle'a* (canoe), 451, 451 nn.26–28, 30,  
457 n.42, 460 n.48, 461, 461  
n.51, 468, 474, 475 n.81, 487
- Hokulua (Venus), 486
- Hökü-pa'a (Polaris), 459, 486
- Hokuula (Mars), 486
- Holm, Gustav Frederik, 168
- Holoholopinaau (Saturn), 486
- Holroyd, Bob, 390, 390 n.12
- Holub, Emil, 35
- Holy People, 109
- Holy Trinity, 337
- Homesteads. *See also* Settlements  
on Australian Aboriginal mud maps, 408  
in southern African agriculturalist engrav-  
ings, 18–19, 19 n.22, 20–22, 23
- Hometeule (Ometeotl), 236
- Honanistto. *See* Howling Wolf the Nostal-  
gic
- Honaunau, 460
- Hone Mokehakeha. *See* E Kehu
- Hone Mokekehu. *See* E Kehu
- Hone Tühawaiki  
and land dispute, 498  
on Māori map of South Island, 513  
maps by, 495–96, 513–14, 516, 517,  
533, 534
- Honey Ant Dreaming, 362

- Honey collecting, 15  
 Honey Lake, California, 112–13  
 Hoofprints, 331  
 Hooper, W., 346  
 Hopewell, Treaty of, 105  
 Hopewellian period, 94–95  
 Hopi Indians, 53, 66, 109 n.193  
 Horeta te Taniwha, Te. *See* Te Horeta te Taniwha  
 Horizon  
   in Carolinian navigation, 472–73  
   Chimú surveying instruments and, 284  
   in Luiseño and Diegueño sandpainting, 112  
   on Tahitian compasses, 497  
   in traditional cosmography, 539  
   in Warao cosmology, 310, 313, 315  
 Horn, map on, 114–15  
 Horomona Patu. *See* Soloman  
 Horse Creek, 134  
 Horses  
   in Howling Wolf's ledger art, 118  
   on Mapa de Santa Cruz, 244  
   map of Hidatsa mission to steal, 133 n.255  
 Horticulture, 442  
 Hospitals, 320  
 Hostains, Jean, 36  
 "House of the hills," 312  
 "House of the waters," 312  
 Houses. *See also* Architecture; Buildings  
   on Australian Aboriginal maps, 403, 406, 409–10, 413  
   Macassar, 411, 412  
   in Melanesian cosmography, 434  
   Yupno, 435  
 Howells Point, 516  
 Howling Wolf the Nostalgic (Honanistto), 118, 119, 120, 121, 179  
 Howloko. *See* Hauroko  
 Hoyle, Fred, 64  
 Hua (section of land, outline), 494–95  
 Huaca Prieta, 262  
 Huacas (sacred things), 258, 265–68, 269, 297  
   in *ceque* system, 287–88, 289  
   in drawing of house of Manco Capac, 295  
   Inka system of, 285, 286  
   at Kalasasaya, 282  
   and *kipus*, 291, 294  
   and mapping rites, 269, 270  
   on Nasca pottery, 277, 278  
   at Old Temple at Chavín de Huántar, 271  
   Pacariqtambo as, 295 n.180  
   at Tiwanaku, 281  
   and *tocapu* designs, 294  
   water and location of, 286  
 Huahua (sketch out a pattern), 494–95  
 Hualapai Mountains, 63  
 Huanacauri, 286 n.133, 287  
 Huantásán, 271, 272, 272 n.57  
 Huaqaq, 272 n.59  
 Huarochiri Manuscript, 266  
 Hudson Bay  
   on Andrew's map, 149  
   on Chippewa map of western Canada, 136, 140–41  
   on Knight's map, 152  
   maps of coastline, 165–66  
   Meliki's map, 160–61  
   Teseuke's map, 162–65  
   Wetalltok's map, 155, 164, 165  
   on York Factory Indian's map, 146, 147  
 Hudson River, 68, 77, 77 n.81, 78–79, 178  
 Hudson's Bay Company  
   and Auld's map, 166 n.327  
   exhibition of native North American maps of, 56 n.26  
   and Fidler's native North American maps, 129, 130, 132 n.253  
   and Knight's map, 149  
   native North Americans who drafted maps for, 56  
   and Norton's native North American map, 137, 141, 149  
   Subarctic Indian maps in archives of, 143  
 Huerfano River, 132  
 Huexotzinco (Uexotzinco), 207, 251  
 Hugh-Jones, Stephen, 320  
 Huihui (Pleiades), 486  
 Huitzilopochtli  
   in Culhua-Mexica mythology, 218  
   on Mapa de Sigüenza, 219  
   on map in Primeros memoriales, 227  
   on map of Tenochtitlan, 193, 194  
 Huitztlampa (thorny land), 231  
 Huli people, 430  
 Humans  
   in African cartography  
     agriculturalist engravings, 19  
     Kongo, 27  
     *lukala* maps, 32  
     rock art, 14, 15, 16  
   in Andean cartography  
     on Bennett Stela, 282  
     in Inka origin myth, 265–66  
     in Moche art, 278  
     on Nasca pottery, 277  
     on Paracas textiles, 273  
     rock art, 271  
     on Santa Cruz Pachacuti's drawing, 297  
   in Australian Aboriginal cartography, 390, 391  
     and Dreamings, 360  
     map of Macassar, 413  
     as painting medium, 355  
     paintings, 363–64 n.43  
   in Eurasian Arctic and Subarctic cartography  
     on birchbark, 344  
     on bleached sealskin, 346, 349  
     on Chukchi decorated paddle, 345, 347  
     on decorated canoe benches, 346  
     on Ket drum, 337  
     Khant signs, 343  
     Mansi wooden board maps, 342  
     rock art, 331  
     on Sami drum, 337  
   in Iatmul *mai* ritual, *pl.23*  
   in Mesoamerican cartography  
     cosmographic, 185, 234, 237  
     landscape painting, 256  
     Lienzo of Zacatepec 1, 208  
     Mapa de Santa Cruz, 244  
     map in Codex Boturini, 221  
     map of Amoltepec, 214  
     map of Apoala Valley, 216  
     map of Cuauhtinchan, 205  
     map of Tenochtitlan, 194  
     map of Teozacoalco, 212  
     Metlatoyuca, 189  
     Plano en papel de maguey, 224  
   in native North American cartography, 108–9, 179  
     late twentieth-century Inuit art, 169  
     map by Howling Wolf, 120  
     map by Meliki, 161  
     map by Miguel, 126  
     map by Sitting Rabbit, 124  
     message maps, 84  
     in Navajo Male Shootingway, *pl.5*  
     Navajo sandpainting, 109  
     in pictographs, 79, 80, 81  
     Purgatoire River petroglyph, 66  
     on wampum belts, 89  
     sacrifice of, 183, 227, 232, 233  
   in South American and Caribbean cartography  
     in "Bericht" of Jeptha, 323  
     constellations visualized as, 304–5  
     Tukano cosmic fertility map, *pl.13*  
 Humboldt, Alexander von, 55  
 Humboldt Fragment 2, 200, 222, 222–23, 252–53  
 Humu (Altair), 486–87  
 Hunter-gatherers, and rock art, 14–17, 18, 23, 538  
 Hunters  
   on Chukchi decorated paddle, 347  
   on Eurasian Arctic and Subarctic canoe benches, 346  
   on Eurasian Arctic and Subarctic maps, 341, 342, 344  
   on Nivkhi ritual vessels, 347  
 Hunting  
   in African rock art, 15  
   in Eurasian Arctic and Subarctic cartography, 329, 348  
     on birchbark, 342  
     on bleached sealskin, 346, 349  
     on canoe benches, 346, 346 n.62, 348  
     Khant signs, 343  
     Mansi wooden board maps, 342  
     Nivkhi, 344–45, 347  
     rock art, 331, 332  
   in native North American cartography, 135, 172–73, 179  
     on animal hides, 115  
     on Cree message maps, 84 n.108  
     glyph suggested for use during, 61  
     on map of journey to hunt musk oxen, 161–62, 164–65, 179, 180

- Hunting, in native North American cartography (*cont.*)  
 on maps compiled for Inuit Land Use and Occupancy Project, 170  
 on "Nations Amies et Ennemies des Tchikachas," 103  
 on Purgatoire River petroglyph, 66  
 scapulimancy, 141, 142  
 in Papua New Guinea, 440, 441, 442  
 in South American and Caribbean cartography, 309, 313, 319
- Hurin (lower) Cuzco, 286
- Huron Indians  
 on Iroquois message map, 85–86 n.113  
 on "Nations Amies et Ennemies des Tchikachas," 103  
 possible maps by, 67 n.60  
 and war preparations, 69
- Hurtado de Mendoza, Andrés, 258
- Huru (Huru Kototi Toha Mahue?), 508, 508 n.63, 509
- Huruhuru, Te. *See* Te Huruhuru
- Huruku River, 268
- Hutchins, Edwin, 472–73
- Hyades, 273
- Hyde, Rev. C. M., 491
- Hydrographic Office, Taunton, 531–32
- Hydrography. *See also* Water  
 on Eurasian Arctic and Subarctic maps, 342  
 of Gero-Schunu-Wy-Ha's map, 133, 135  
 on map from Codex Xolotl, *pl.9*  
 of Non-Chi-Ning-Ga's map, 137  
 on printed maps of Canadian Shield, 145
- Hydrology. *See also* Water  
 Andean  
 and *ceque* system, 286  
*huacas* and, 265  
 on Nasca pottery, 277  
 Santa Cruz Pachacuti's drawing and, 295  
 in Taipikala, 280  
 on Eurasian Arctic and Subarctic maps, 343  
 on Māori maps, 531, 531 n.125  
 on Map Rock petroglyph, 65  
 on native North American maps, 179  
 and scapulimancy, 142  
 South American and Caribbean maps regarding, 320
- Iatmul people  
 artistic and ritual maps, 438–40  
 and genealogy, 428  
*mai* ritual, 439, *pl.23*  
 maps, 4–5  
 and stars, 428  
*tsagi-mboe*, 428, 429  
 villages depicted on Chambri maps, 436, 437–38, 441  
 women forbidden some paths, 441  
 world map drawn in dirt, 435
- Iba (rear or lower areas), 434
- Iberville, Pierre Le Moyne d'. *See* Le Moyne d'Iberville, Pierre
- Ica River, 274
- Ica Valley, Peru  
*khipu* from, 291, 292–93, 293, 299  
 textiles and pottery from, 273 n.67
- Ice  
 on Illigliak's map, 159–60 n.320, 160  
 in northern Eurasia, 329
- Ice fishing, 346
- Icons  
 Andean, 262, 295  
 Australian Aboriginal, 362–64, 365, 381, 387, 405  
 Spanish, 295
- Ixcicohuatl, 218–19, 222
- Idaho, Map Rock petroglyph, 62, 64, 65
- Idaho Statesman*, 62
- Ida* ritual, 440, 441
- Idols, 317, 318
- Idotlyazee, 114, 146, 146 n.291, 149, 150–51, 165
- al-Idrīsī, 35, 38 n.67
- Ifa (Orunmila), 27–28 n.21
- Igloos, 161
- Iglulik Eskimos  
 and cartography, 157  
 maps of coast of Melville Peninsula, 157  
 Meliki's maps, 160–62, 179, 180  
 Teseuke's map, 162–65
- Ihuitlan, Lienzo of, 250–51
- Ihuraua Block, 498, 499
- Ihuraua River, 498, 499
- I Ki Ha Wa He (Little Owl). *See* Sitting Rabbit
- Ikmallik, *pl.8*
- Ilg, M., 47
- Ilinka River, 338
- Illigliak, 159, 160, 164–65
- Illinois, 90–91, 92, 93
- Illinois Indians, 117
- Imago Mundi*, 191
- Imperial Russian Geographical Society, 342, 344
- India, 421, 488
- Indiana, 90–91, 92, 93
- "Indian and Inuit Maps" (G. Malcolm Lewis), 56 n.29
- Indian Department, 79
- Indianische Karten Nordamerikas* (Rainer Vollmar), 55
- Indian Ocean, 421, 488
- Indians. *See also specific tribes*  
 and van den Bosh map, 95–96 n.156, 97  
 on Chickasaw and Catawba maps, 101  
 and cosmography, 53–54  
 extend European maps of rivers and coastlines, 180  
 languages, 53 n.6  
 map media (*see* Map media, native North American)  
 maps by  
 cartobibliography of, 56  
 exhibitions of, 56 n.26  
 made during interactions with Europeans, 71–79, 80, 81, 143–54, 155, 156  
 made for Geological Survey of Canada, 152  
 used in land negotiations, 73  
 and pictography, 52–53  
 and de Soto expedition map, 95, 96, 97–98  
 stages of cartography, 51–52  
 use of circle-cross symbol, 540  
 and Velasco map, 70–71  
 and words for "map," 52–53  
 on Yuman map of Colorado River, 177, 178
- Indian Territory, 118
- "Indigenous," defined, 183 n.4
- Indonesia, 421, 488, 488 n.113
- Infant mortality, 311
- Information  
 documents regarding transmission of, 93–94  
 on native North American maps, 168, 178–79  
 and pictography, 85–86 n.113
- Ingenio River, 275
- Inkarri, 266, 267, 299
- Inkas, 284–97, 298–99  
 and Andean cultural change, 271  
 and body-landscape metaphor, 268  
*ceque* system, 285–87  
 city modeling in clay, 320  
 and Guamán Poma's map, 264  
 and *huacas*, 265, 266, 287–88, 289  
*khipus*, 1, 289–94  
 lack of surviving maps from, 257–58  
 ledger of trade with Europeans, 293 n.173  
 map of empire, 295–96, 298–99  
 marriage and residence rules, 260  
*mit'a* system, 277  
 native manuscripts, 294–97, 298–99  
 origin myths, 265–66, 280, 280 n.103, 286 n.133, 287  
 and Poquen Cancha, 258 n.8  
 resettlement of Cochabamba Valley, 262  
 road system, 288–89, 290  
 social classes, 286
- Inka Yupanque, 288
- Inlets, 531 n.125
- Inosagur, 470
- Insects, 200
- Institut und Sammlung für Völkerkunde, Universität Göttingen, 490
- Instruments  
 musical, 32  
 navigational, 485–87  
 surveying, 283, 284
- Inti chinkiapushan* (sunset motif), 268
- Inti Illapa, 287
- Inti lloqsimushan* (sunrise motif), 268
- Inti* motifs, 266–67, 268
- Intotto. *See* Entotto
- Inuit, 149, 154–70. *See also* Eskimos; and *specific tribes*  
 and cartography, 5–6  
 Euro-American perceptions, 157–59  
 influence on European and Euro-Ameri-



- can maps, 145  
 and mapping of coastlines, 146, 178, 180  
 maps by  
   cartobibliography of, 56  
   ephemeral, 159  
   exhibitions, 56 n.26  
   on ivory and wood, 166–69, 176  
   in late twentieth-century art and social policy, 169–70  
   made for Geological Survey of Canada, 152  
   on paper, 159–66  
   used in land negotiations, 73  
 representations of territory west of Lake Superior, 145 n.287  
 and shamanistic rituals, 6  
 and understanding of European maps, 157–59  
 words for “map,” 52  
 Inuit Land Use and Occupancy Project, 170  
*Investigator* (ship), 157  
 Iokhel’son, V. I., 343, 344, 345  
 Iowa Indians, 134–35, 136, 137, 177–78  
 Ipanoré, Falls of, 306, 308  
 Irarte, Pedro di, 99 n.166  
 Irian Jaya, 8 n.35, 541  
 Irmer, Dr., 491  
 Iron ore, 164, 165  
 Iroquois Confederacy, 69, 142 n.280  
   and birchbark maps, 80–81  
   contact with Europeans, 66–67  
   and Five Nations belts, 89, 90  
   languages, 96, 99 n.165  
   map of Lachine Rapids and upper St. Lawrence River, 172  
   map of St. Lawrence River, 67–68  
   map of Susquehanna River, 77  
   message maps, 85–86 n.113  
   on “Nations Amies et Ennemies des Tchikachas,” 103  
   relations with Canadian Indians, 93–94  
   and wampum belts, 88–89  
   word for “map,” 52  
 Irrigation, Andean, 257, 260 n.14, 295 n.180  
   associated with pumas, 285  
   and Chicama-Moche canal, 283–84  
   and division of Quinua, 264  
   on Guamán Poma’s map, 262–63, 264  
   on Moche pottery, 278, 279  
   Nazca geoglyphs and, 276  
   on Piedra Cansada, 288  
   on Q’inku Stone, 288  
   on Quinua pottery, 265  
   on Santa Cruz Pachacuti’s drawing, 297  
 Isbell, William Harris, 257 n.6  
 Ishi, 115, 118, 172, 172 n.351  
 Islam, 29, 39, 539  
 Islands  
   in Australian Aboriginal cartography, 367, 397  
   on Chukchi wooden board map, 341  
   European exploration of, 444–45  
   in Inka creation myth, 280  
   on Māori maps, 514, 529, 531 n.125, 533  
   on Murik baskets, 440 n.48  
   names for, 324, 493  
   in native North American cartography, 178  
   Ammassalik three-dimensional maps, 168, 169  
   Bering Strait Eskimo map, 159  
   Chickasaw map, 100 n.167  
   Lahontan’s map, 128  
   map by Toongalook, 170  
   map by Wetalltok, 155  
   maps engraved on walrus tusks, 167  
   Ojibwa pictographs for, 82  
   on Oceanic maps  
     by Klein, 452, 453  
     by Tupaia, 447, 448, 449–50  
   in Oceanic navigation, 444, 461  
   Carolinian, 444, 465–66, 467  
     reference islands, 470–71, 473, 474  
     and triggerfish, 470  
   Marshallese, 477, 479  
   on South American and Caribbean maps, 319–20  
 Isthmus of Tehuantepec, 183, 196  
 Italian language  
   on map from Codex Ríos, 236, 254–55  
   on Ras Makonnen’s map, 45  
 Itineraries  
   Cossack, 330  
   influence on Dupuis’s maps, 38  
   in Middle Ages, 4 n.9  
   traditional cartography and, 537  
 Itinerary histories, Mesoamerican, 187, 218–20, 221, 222  
   frequency of survival, 196  
   related to trade, 228–29  
   supplied by Motecuhzoma, 228, 228 n.121  
 Itu, 170 n.336  
 Itzás, 237, 237 n.148  
 Ivanov, S. V., 346, 346 n.62, 348  
 Ivory  
   maps on, 166–68, 169, 176, 541  
   Neo-Eskimo tradition of engraving, 171  
*Iwi* (nations or peoples), 493, 497, 500, 501, 503 n.45, 508–9, 512, 528, 529, 530  
 Ix (year bearer), 203  
 Ixtapalapa, 200, 201  
 Ixtlilxochitl, Fernando de Alva, 190, 190 n.17, 205 n.67, 206, 208  
 Izapa, stela at, 185, 234, 235, 254–55  
*Izara-we* (jealous and dangerous women), 434  
 Iztaccihuatl (White Lady), *pl.*9  
 “J. B. Tyrrell, Explorer and Adventurer” (exhibition) (Thomas Fisher Rare Book Library, University of Toronto), 56 n.26  
*Jabmeaimo* (realm of the dead), 337  
*Jabu* (hill), 389  
 Jabwot Island, 484  
 Jade, 493  
 Jaguar-caterpillar constellation, 320  
 Jaguars, 308, 312  
 Jалану, 388–89  
 Jaliarna area, Central Australia, 388  
 Jaluit Gesellschaft, 490  
 Jaluit Island, 480, 482, 484  
 James, Edwin, 129  
 James Bay, 151–52, 154, 156, 165, 173, 179  
 Jameson, Robert, 166 n.327  
 James River, 68, 68 n.64, 90 n.129  
 Jansen, Maarten E. R. G. N., 191, 215 n.92  
 Jansz, Willem, 414  
 Japan, and Caroline Islands, 462  
 Java, 449  
 Jeffreys, Mervyn David Waldegrave, 42, 43  
*Jelat ai*, 482  
*Jeljelat ai*, 482  
 Jenness, Diamond, 158  
 Jennings, Edmund, 99 n.162  
 Jephtha, 322–23  
 Jeronimus de la Croix, 68  
 Jerusalem, 29 n.31  
*Jesuit Relations* (1837), 85–86 n.113  
 Jesuits, 142 n.280, 451–52, 453  
 Jet, 110  
*Jila Japingka* (Peter Skipper), 367, *pl.*16  
 Jima. *See* Gimma  
 Jirijirimo Falls, 306, 308  
 João II (Portugal), 319  
 John Scotts Lake, 154  
 Johnson, R. Townley, *pl.*1  
 Johnson, Ruby Kawena, 486–87  
 Johnson, Vivien, 399, 400–401  
 Johnstone, J. J., 523  
 Jolliet, Louis, 124 n.231  
 Jones, Hugh, 86  
*Jorko* (earth), 333  
 Joseph, Chief, 106  
*Jubilee History of South Canterbury* (Johannes Carl Andersen), 494  
 Judicial system. *See* Legal system  
 Juksakka, 337  
 Julia, 38  
 Juniata River, 74, 179  
 Jupiter, 291, 486  
*Jur in okme* (stakes or posts) swells, 478, 478 n.89, 479, 480  
 Kaata community, 268–69, 270, 299  
 Kaawela (Jupiter), 486  
 Ka’ba, 29  
*Kabi* (water), 389  
 Kadu, 454 n.36  
 Kaejaegoche, 75  
*Kaelib* (western) swells, 476, 477, 478, 479, 480, 482, 484  
 Kaffe. *See* Caffa  
 Kafuruurh, 470  
 Kāhika te Aroaro, 524  
 Kahiki groups, 486  
 Ka Hoku Hookekewaa (Sirius), 486  
 Kaiapoi, *pl.*24

- Kaiapoi Māoris, 523  
*Kaika* (village), 506 n.62, 508  
 Kaikoura Peninsula, 530  
 Kaimai range, 512  
 Kāinga (villages), 493, 499, 508 n.69, 531 n.125, 535  
 Kaingaroa Harbor, 511  
 Kaipoi, 505  
 Kaituna River, 529  
 Kaizheosh, 81  
 Kakarook family, 167  
 Kakekayash, Henry, 137–38 n.265  
 Ka:kelbi, 389  
 Kak-*ste*'namickcipic (Black Beaver River), 142  
 Kalala Ilunga, 33  
 Kalasasaya, 282  
*Kalitamena ipigapigabu* (in the sea it is sparkling), 434–35  
 Kaloa, 486  
 Kaluli people, 434  
*Kalunga* (horizontal line), 27  
 Kamakau, Samuel Manaiaakalani, 487 n.110  
 Kamchatka, 457  
 Kamehameha I, 487 n.110  
 Kames, 146  
 Kamloops, 114  
 Kan (year bearer), 203  
*Kanaga* mask, 27  
 Kandire, 313  
 Kane (god), 486  
 Kaneakaho'owaha, 487 n.110  
 Kaneloa (god), 486  
 Kangarjuatjarmiuts, 157  
 Kaniere (Mount Harman, Mount Kaniere), 524, 525  
 Kano, 35  
 Kaolin, 366  
 Kap Dan, 168  
 Kapea, 486  
*Kapi* (water), 389  
 Kapon, 305 n.8  
 Kapuarangi (fishing ground), 497  
*Karai* (prophet-shamans), 313  
*Karakia* (incantation), 496  
 Karelia, petroglyphs from, 331, 332  
 Kariara Country, 390  
 Kariipuna, 317  
 Karoshimo (Red Neck), 312, 313  
 "Karty pervobytnykh narodov" (Maps of primitive peoples) (Bruno F. Adler), 330 n.8  
 Kasai, 40  
 Kashita Indians, 103  
 Kasyga, 346, 348  
 Katbulka, 388  
 Katsina, 35  
 Kaulua (month), 486  
*Kaurehe* (monster), 520, 520 n.98  
 Kauri trees, 531 n.125  
 Kawarau River, 518  
 Kawatiri River. *See* Buller River  
 Kayaks, 349  
 Kayapó peoples, 311, 317, 319  
*Kaygas* (shovel-nosed shark), 428  
 Ke alanui a ke Ku'uku'u (the road of the Spider), 486  
 Ke alanui i ka Piko o Wakea (the way to the navel of Wakea), 486  
 Ke alanui maaweula a Kanaloa (the much travelled highway of Kanaloa), 486  
 Ke alanui polohiwa a Kane (the black shining road of Kane), 486  
 Ke ala'ula a Kane (the dawning or bright road of Kane), 486  
 Keating, John W., 79  
 Kebrā Nāgäst, 28, 29, 30, 30 n.35  
 Keen, Ian, 371  
 Keewatin District, 161–62, 164–65, 179, 180  
 Keewhoee (town), 89  
 Kehu, E. *See* E Kehu  
 Ke kamaihulipu (art of righting upset canoes), 487  
 Kel Adagh, 41  
 Kel Ahagger, 39  
 Kelsey, Theodore, 486  
 Kendall, Thomas, 494–95  
 Kenko Stone. *See* Q'inku Stone  
 Kennebec dialect group, 84  
 Kennings, 273 n.63  
 Keoe (Vega?), 486  
 Kepelino Keauokalani, 459  
 Kepple Island (Niutopotapu), 450, 451  
 Ket people, 335, 337  
 Kettle River, 85  
 Keymis, Lawrence, 324–25  
 Keys, map, 126. *See also* Legends, map  
 Khakasiya. *See* Esino  
 Khant signs, 343, 346  
*Khipucamayo* (*khipu* secretary), 291  
*Khipus* (Quipus), 1, 258 n.8, 289–94, 299. *See also* String  
 Khoisan, 6, 26 n.11, 13–14  
 Khomosha, 47  
*Kikaigem* (to mark, to inscribe), 86  
*Kikaigon* (mark, inscribed bark), 86  
 Kili Island, 480, 482, 484  
 Kili Kilu Ag Najim, 40  
 Killer whales, 347  
 Kindred Tribe, 416  
 King, Philip Gidley, 508, 508 n.65, 531  
 Kingsley, Mary H., 36  
 Kingston Arm, Lake Wakatipu, 505  
 King William's War, 94  
*Kinre* (chest), 268  
 Ki oo cus (the Little Bear), 114, 129–32, 161, 179  
 Kiowa Indians, 118  
 calendar, 173, 174  
 cosmography, 53  
 map drawn for James, 129  
 Kiwee Indians, 89  
*K'iraqey puntas* (toothlike points), 266, 267  
 Kirchhoff, Paul, 191  
 Kiribati archipelago (Gilbert Islands), 420, 421, 485 n.105  
*Kiripaka* (flint), 493  
*Kirugu* cords, 428, 429  
 Klah, Hosteen, rug by, 111  
 Klamath Indians, 113  
 Klamath River, 113  
 Klein, Father Paul, 452, 453, 489  
 Knife River, 124  
 Knight, James, 149, 152  
 Knives, used to make maps, 85, 531  
 Knots  
*khipus* and, 290–94  
 as Melanesian maps, 428, 429  
 Knowledge  
 importance of in Melanesian society, 425  
 Māori sharing of, 493  
*Knowledge and Secrecy in an Aboriginal Region* (Ian Keen), 371  
 Koa alakai maluna (guide above you), 487  
 Koatohee. *See* Corn Tassel  
 Kochab, 465  
 Koch-Grünberg, Theodor, 308, 320  
 Kogi-n-Kalem, 40  
 Kohklux, 115, 116–17, 180  
 Kohl, Johann Georg, 55  
 Kokatja language group. *See* Kukatja language group  
 Kokoiki, 486  
 Kola Peninsula, labyrinth on, 331  
 Kolata, Alan L., 280 nn.103, 104  
 Koloï, Catherina, 304  
 Kolyma River, 345  
 Kombrangowi Mountain, *pl.*23  
 Kongos, 27, 541  
 Kooti Arikirangi te Turuki, Te. *See* Te Kooti Arikirangi te Turuki  
*Kopua* (subtribal boundary mark), 496  
*Kopua-tama*, 496  
 Kordt, Dr., 490  
 Koreti. *See* Oreti  
 Korkodon River, 345  
 Korokoro. *See* Korra-korra  
 Korosameri River, 428  
 Korra-korra (Korokoro?), 501  
 Koryaks, 171, 333–34, 336, *pl.*14  
 Korzybski, Alfred, 10  
 Kosrae (Kusaie), 455  
 Kosslyn, Stephen M., 4 n.10  
 Kosy (braids), 333  
 Kotosh, twin platform mounds in, 262  
 Kotzebue, Otto von, 485  
 chart of Caroline Islands, 454 n.36  
 chart of Marshall Islands, 453–54, 456–57  
 Kotzebue Sound, 167  
 Kowara River. *See* Niger River  
 Koz'minskiy, I. I., 336, 339  
 Krämer, Augustin, 455, 476, 478, 482, 485  
 Kraus Virginia map, 69–70, 72  
 Kroeber, Alfred L., 108 n.189, 112, 118  
 Kropp, Manfred, 30  
 Kubler, George, 184 n.5, 191, 279  
 Kuehn, David D., 63  
 Kukatja language group, 395, 397  
 Kula system, 430–31, 434  
 Kumaka tree, 303  
*Kumi* (unit of measurement), 496

- Kunit, 168, 168 n.334, 169  
 Kupka, Karel, 364 n.44  
 Kuril Islands, 338–39  
 Kus, James S., 284 n.121  
 Kuwái, 317  
*Kuyujani*, 322  
 Kwajalein Island, 484  
 KwaZulu-Natal region, 19, 20, 22  
 Kyselka, Will, 468
- Labov, W., 4 n.9  
 Labrador, 136, 138, 152  
 Labyrinths, 331–32, 333  
 Lac de Tecamouiouen. *See* Rainy Lake  
 Lachine Rapids, 67–68, 172  
 Lac Quinipigon. *See* Lake Winnipeg  
 Lac Saint-Jean. *See* Lake St. John  
 Lacuso, Manuel, 112  
 Lac Vieux Desert, 79, 81  
 Ladders, 333  
 Lafferty, Robert H., 103  
 Lafitau, Joseph-François, 80–81  
 La France, Joseph, 144–45  
 La Galgada, 262  
 Lagediack, 453  
 Lagoons, 531 n.125  
 Lahontan, baron de (Louis Armand de Lom d'Arce), 80, 126–28, 179  
 Lake Alexandrina. *See* Takamoana  
 Lake Athabasca, 149, 152–53, 177, 178  
 Lake Baikal, 331 n.16  
 Lake Boya, 33  
 Lake Browning, 525  
 Lake Catherine, 524  
 Lake Champlain, 70 n.76, 71  
 Lake Coleridge (Whakamātau), 524  
 Lake Erie, 69, 71, 77 n.81  
 Lake Eyre, Australia, 369, 370, 383–84, 385  
 Lake George, 70 n.76, 71  
 Lake Gregory toa, 385  
 Lake Hawea (Hāwea), 516, 518  
   on Mantell's map, 521 n. 101  
   Rakiraki's map of, 520, 534  
   on Reko's maps, 505  
   on Te Huruheru's map, 518  
 Lake Heron, 524  
 Lake Huro, 511  
 Lake Huron, 77 n.81  
 Lake Kaniere, 524  
 Lake Lyndon, 524  
 Lake McDonald (MacDonald), 382  
 Lake McGregor. *See* Wakarukumoana  
 Lake Michigan, 136  
 Lake Minnewanka, 132  
 Lake Nipigon, 149, 151, 154, 155, 177  
 Lake Nipissing, 77 n.81  
 Lake of the Woods, 144  
 Lake Onoke, 509, 509–10, 534  
 Lake Ontario  
   map of drawn in dirt, 142 n.280  
   on map of St. Lawrence, Connecticut, Hudson, and Susquehanna Rivers, 77 n.81  
   on map of Susquehanna River, 77, 179  
   on Mississauga boundary map, 77, 79  
   on Velasco map, 70 n.76, 71  
 Lake Pateriki, 511  
 Lake Polgu, 392  
 Lake Rangitai, 511  
 Lake Rotoehu, 528, 530  
 Lake Rotoiti, 496–97 n.15  
   Māori map of, 536  
   on Ngāti Pikiao land-claim map, 528  
   on Te Arawa Māori map, 512  
 Lake Rotokakahi (Green Lake), 510–12, 531, 535  
 Lake Rotoma, 528  
 Lake Rotoroa, 496–97 n.15  
 Lake Rotorua, 512, 528, 536  
 Lakes  
   in Eurasian Arctic and Subarctic cosmography, 339  
   on Eurasian Arctic and Subarctic maps, 344, 346  
   on European maps, 145  
   by Cortés, 194  
   Smith's 1612 map of Virginia, 69, 71  
   on Māori maps, 531 n.125  
   of Chatham Island, 534  
   von Haast's map, 523  
   of Lakes Wairarapa and Onoke, 534  
   by Mantell, 521 n. 101  
   by Ngāti Pikiao, 528, 529  
   of Rakaia River headwaters, 535  
   by Rakiraki, 534  
   by Reko, 505  
   of Rotorua lakes, 536  
   of South Island, 514, *pl.*24  
   by Te Huruheru, 518, 534  
   by Te Ware Korari, 535, 537–38  
   Māori toponyms for, 493  
   on Mesoamerican maps  
   in Codex Xolotl, 205, *pl.*9  
   Mapa de Sigüenza, 218  
   pictographs for, 200  
   of Tenochtitlan, 193  
   on native North American maps  
   by Andrew, 149  
   birchbark, 80  
   of California and Great Basin, 113  
   of Charlton Island, 151, 152, 152 n.296  
   by Franklin, 143–44  
   by Lahontan, 127, 128  
   by La Vérendrye, 144  
   by Montagnais, 136  
   Navajo sandpainting, 110  
   Ojibwa message map, 86  
   Ojibwa pictographs for, 82  
   wampum maps, 89  
   on Writing Rock, 63 n.46  
 Lake Selfe, 524  
 Lake St. John (Lac Saint-Jean), 142  
 Lake St. John Montagnais Indians. *See* Montagnais Indians  
 Lake Superior  
   in cartographic pictograph, 80  
   in false geography of the Northwest, 71 n.77  
   Inuit representations of territory west of, 145 n.287  
   map of coastline, 85 n.112  
   on Ojibwa migration scroll, 83  
 Lake Tahoe, 109  
 Lake Tanganyika, 31  
 Lake Taupo (Taupō), 501, 503, 512, 530  
 Lake Te Anau, 521 n. 101  
 Lake Titicaca, 280 n.104  
   in Inka origin myth, 280 n.103  
   maps of shoreline, 263–64, 264 n.27, 265, 297  
   on stone shrine of Atoija, 270 n.48  
   as *taypi*, 280, 281  
 Lake Victoria, 41  
 Lake Waikaremoana, 512  
 Lake Wairarapa, 509, 509–10, 534  
 Lake Wakatipu (Wakatipu Wai Maori)  
   on Mantell's map, 521 n. 101  
   Rakiraki's map of, 520, 534  
   on Reko's map, 505  
   on Te Huruheru's map, 518  
 Lake Wanaka (Wānaka, Oanaka), 516  
   on Hone Tūhawaiki's map, 516–18 n.92  
   on Mantell's map, 521 n. 101  
   Rakiraki's map of, 520, 534  
   on Reko's maps, 505  
   on Te Huruheru's map, 518  
 Lake Winnipeg (Lac Quinipigon), 71 n.77, 144  
 Lakota Sioux Indians, 58. *See also* Sioux Indians  
   celestial maps, 125, 171  
   cosmography, 55  
   and mirroring, 120–21, 125, 176  
 Lamar River, 114  
 La Marteblanche, 145  
 Lambayeque River, 262, 264  
 Lamhatty, 96–99  
 Lamotrek Atoll, 452, 470, 471, 472  
 Land  
   Andean  
   *huacas* and, 265  
   organization, 258–70, 266  
   and society, 260–62  
   native North American ownership of, 73  
   Ojibwa pictographs for, 82  
 Land claims  
   Australian Aboriginal maps and, 405, 408, 413  
   Māori maps relating to, 525–30  
   South American and Caribbean, 321 n.49  
 Lander Creek, 407  
 Landfall, making, 460  
 Landforms, South American and Caribbean modeling of, 320–21  
 Land grants, Mesoamerican, 241, 243, 245  
 Land Information New Zealand, 531–32, 534  
 Landing strips, 320  
 Landmarks  
   in Achuar system of giving directions, 303  
   in Melanesian song maps, 434  
   as native North American references, 53

- Landowners, 529  
 Land rights, Andean, 258–59, 262, 262, 264  
 Landscape  
 Andean  
 and economy, 259–60  
*huacas* and, 266  
 Inka carved models of, 287–88, 289  
 metaphors for, 268–69  
 in Moche art, 278  
 in rock art, 271  
 on Mesoamerican maps, 212, 244  
 Landscape drawings, 267 n.38  
 Landscape painting, Mesoamerican, 184, 184 n.5, 197, 256  
 Land tenure, 213, 213 n.84, 221  
 Land titles, 220, 220 n.102, 241  
 Lane, Ralph, 67 n.60  
 Langemui, 453–54  
 Languages  
 Austronesian, 423, 434  
 Chocho, 207, 248–49, 250–51  
 Chocho-Popoloca, 250–51, 252–53  
 Indian  
 Algonquian, 99 n.165, 135  
 Athapaskan, 135, 149  
 Caddoan, 99 n.165  
 Chibchan-Paezan, 98  
 Chickasaw, 99 n.166  
 Iroquoian, 96, 99 n.165  
 Mobilian, 99–100 n.166  
 Muskogean, 99 n.165  
 Na-Dene, 171  
 Siouan, 99 n.165  
 and spatial deixis, 53 n.6  
 Timucuan, 96, 97 n.158  
 Towasa, 96, 97 n.158, 98  
 Western Muskogean, 99 n.166  
 and words for “map,” 52–53  
 Italian, 236, 254–55  
 Latin  
 alphabet, 199, 244  
 learned in Mesoamerica, 242  
 maps in, 252–53  
 Māori, 494–95  
 Maya, 208, 248–49, 254–55  
 Mixtec, 187, 187 n.12  
 maps in, 248–49, 252–53  
 and Zacatepec, 209  
 Nahuatl (*see* Nahuatl)  
 in New Guinea, 423  
 Papuan, 423  
 Wahgi, 434  
 Lanzón deity, 272  
 Lanzón Gallery, 272  
 La Paz, Bolivia, amulet from, 269  
 La Paz River, 260  
 La Pérouse, Jean-François de Galaup, *compte de* 5 n.16, 338  
 Lapita, 419  
 Large-area maps, 177, 177 nn.358, 359  
 Largeau, Victor, 36–37  
 Largo Canyon, New Mexico, 65–66, 67  
 Larrtjannga Ganambarr. *See* Ganambarr, Larrtjannga  
 La Salle, Robert Cavalier de, 95, 96 n.156, 103  
 Las Minas quebrada, 271  
 Las Vegas, Paiute map of location of, 113  
 Later Stone Age, 13  
 “Late white” series paintings, 14  
 Lathrap, Donald Ward, 272–73  
 Latin  
 alphabet, 199, 244  
 learned in Mesoamerica, 242  
 maps in, 252–53  
 Latitude  
 Arabs use Polaris to measure, 489  
 in “Bericht” of Jephtha, 323  
 on Guamán Poma’s map of Inka empire, 295, 299  
 on modern Caroline Island nautical charts, 469  
 Oceanic instruments and, 485  
 omitted from native North American birchbark maps, 80  
 and solar zenith passages, 291  
 Latour, Bruno, 5 n.16  
 Laushkin, K. D., 331, 331 n.15  
 Laval University, Quebec, 136  
 La Venta (Olmec site), 234 n.140  
 La Vérendrye, Pierre Gaultier de Varennes et de  
 composite map of southern Manitoba, 144, 145–46, 179  
 Cree maps and geographical intelligence collected by, 71 n.77  
 Laws. *See* Legal system  
 Layers, cosmic, 229, 255  
 in Codex Borgia, 253  
 on map from Codex Ríos, 236  
 on Mesoamerican ceramics, 232–34, 235  
 Layouts, gridiron, 244, 251  
 Layton, Robert, 357  
 Leadership, Melanesian, 424  
 League (unit of measurement), 79  
 Leather  
 cadastral maps on, 91 n.133  
 tools made of, 65  
 Leaves, coconut  
 in Carolinian star compass, 462, 463  
 in Marshallese stick chart, 479, 480  
 Le Clercq, Chrétien, 79–80  
 Lederer, John, 68  
 Ledger art, 115, 118, 120, 121  
 Leech Lake, 83  
 Leech River, 83  
 Leeway, 457, 458, 465, 469  
 Legal system  
 Australian Aboriginal maps and, 408–13  
*kbipus* and, 290  
 Mesoamerican maps and, 220, 220 n.102, 224, 225, 226, 241, 242, 243  
 Legends, map. *See also* Keys, map  
 on map of Bamum, 43 n.82  
 on map of Pequot country, 73  
 on map of Zolipa, Veracruz, 243  
 on Meliki’s map of Keewatin District, 162  
 on Orochi cosmography, 337  
 purposes of, 380  
 on Smith’s 1612 map of Virginia, 71  
 on Tupaia’s chart of Polynesia, 448 n.19  
 Lejean, Guillaume, 38 n.68  
 Le Jeune, Father Paul, 85–86 n.113  
 Le Maire, Jakob, 445  
 Le Mercier, François, 89  
 Le Moyne d’Iberville, Pierre, 99 n.166, 103, 105  
 Lena River, 330 n.5, 343  
 Lenni Lenape Indians. *See* Delaware Indians  
 Lenticels, 83–85  
 Leo Africanus, 38 n.67  
*Leo Hollandicus* (Nicolaes Visscher), 285 n.130  
 León, Nicolás, 250  
 León-Portilla, Miguel, 193  
 Lévi-Strauss, Claude, 9, 360  
*Lewa ngu*, 43, 43 n.82  
 Lewis, D., 356  
 Lewis, David, 380–81  
 on Polynesian navigation, 459–60  
 on Tahitian compasses, 497  
 and traditional Indonesian navigational practices, 488 n.113  
*We, the Navigators*, 455  
 and “zenith star” navigational method, 460 n.48  
 Lewis, G. Malcolm, 56, 56 n.29, 57  
 Lewis, Meriwether, 114–15  
 Lewis and Clark expedition, 114–15  
 Lewis Range, 132  
 Lewis-Williams, J. David, 13, 15–16  
 Libby, Orin G., 173  
 Lib Island, 484  
*Lidana* (ideal), 319, 320, 322  
 Liddle, Arthur, 408  
 Liebler, Oskar, 383  
*Lienzos* (indigenous community maps), 184, 191, 195 n.37, 203, 204 n.60, 207, 208 n.72, 215, 245–46, 247  
 A (*see* Codex Meixueiro)  
 Antonio de León (*see* *Lienzos*, of Tlapiltepec)  
 of Coixtlahuaca 1 (Codex Ixtlan), 196, 250–51  
 of Coixtlahuaca 2 (Seler 2), 250–51  
 de Cuauhquechollan, 196  
 de Santa María Nativitas, 252–53  
 of Ihuatlan, 250–51  
 of Petlacala, 246–47, *pl.*12  
 of Tequixtepec 1, 250–51  
 of Tequixtepec 2, 250–51  
 of Tlapiltepec (Lienzo Antonio de León), 219, 250–51  
 of Tulancingo 1, 250–51  
 of Tulancingo 2, 251  
 of Zacatepec 1, 108 n.72, 196, 201, 202–3, 207–8, 209, 213, 241, 248–49  
 of Zacatepec 2, 213, 248–49  
 Life zones, 259–60, 262, 267, 297

- Light, 460, *pl.5*  
 Lighthouses, 119  
 Lightning, 297  
 Limestone escarpments, 146  
 Linde, C., 4 n.9  
 Lindis Pass, 505  
 Lineages  
   Andean, 274, 286  
   and Iatmul body painting, 438  
   Melanesian, 423, 423 n.2  
 Linear measurement, Māori, 495–96  
 Linen  
   as Australian Aboriginal painting  
     medium, 359  
   native North American maps on, 152  
 Lines, 6–7  
   in African cartography  
     in Kongo cosmography, 27  
     on *lukasa*, 32  
     on map drawn for Largeau, 36–37  
     on map of Bamum, 43  
     on maps of Tuareg grazing areas, 40  
     rock art, 14, 15, 538  
     in Tabwa scarification, 30, 31  
   in Andean cosmology, 274  
   on Andean maps  
     by Guamán Poma, 295, 299  
     Moche landscape vessel, 279  
     regarding Lake Titicaca reed beds, 265  
     rock art, 271  
   in Australian Aboriginal cartography,  
     390–91, 397, 539  
     map of body of Australia, 415  
     map of Gumadir River area, 399  
     map of Margulidjban, 401  
     mud maps, 406, 407–8  
     paintings, 363 n.41  
     rock engravings, 374  
     toas, 370  
     Warlpiri, 365  
   in Eurasian Arctic and Subarctic  
     cartography, 344  
     on Chukchi decorated paddle, 347  
     on Dolgan drum, 336  
     on Ket drum, 337  
     petroglyphs, 332  
     on Sami drum, 337  
   on Hawaiian navigation gourd, 486  
   in Inka system of *huacas*, 285  
   on Māori maps  
     of Lakes Wairarapa and Onoke, 510  
     by Ngāti Pikiao, 529, 530  
     by Tuki, 509  
   on Marshallese stick charts, 479, 480  
   on Mesoamerican maps  
     of Atlatlahuacan, Morelos, 242  
     Lienzo of Zacatepec 1, 209  
     Maya cosmographical plate, 235  
     Metlatoyuca, 189  
     Plano en papel de maguey, 187  
   in native North American cartography,  
     138 n.265, 149  
     Beaver Indian cosmography, 139  
     birchbark message map, 84–85  
     cartographic pictograph, 80  
     Catawba map, 99, 101  
     Chickasaw map, 99  
     Delaware cosmographical map, 91  
     Hearne's map, 146  
     Inuit, 178  
     Lahontan's map, 128  
     map by Ac ko mok ki, 132  
     map by Gero-Schunu-Wy-Ha, 132  
     map by Howling Wolf, 118, 119  
     map by Illigliak, 160  
     map by Jimmy Anderson and Curly  
       Head, 146, 148  
     map by Ki oo Cus, 129–30, 130, 132  
     map by Lamhatty, 97–98  
     map by Meatonabee and Idotlyazee,  
       146  
     map by Meliki, 162  
     map of Indiana and Illinois, 91  
     map of Rangeley Lakes region, 85  
     map of western Canada, 137–38  
     map on Quapaw painted bison hide,  
       *pl.6*  
     Map Rock petroglyph, 64  
     maps compiled for Inuit Land Use and  
       Occupancy Project, 170  
     message maps, 84  
     Mississauga boundary map, 77, 79  
     Mohave Rock petroglyph, 63  
     of northern interior, 149  
     petroglyphs from Nevada, 61, 62  
     pictograph at Rancho El Tajo, 61  
     pictorial map, 117  
     Nazca, 257 n.6, 275–78, 297  
     on de Soto expedition map, 97–98  
     on South American and Caribbean maps,  
       310  
     in Warao cosmology, 315  
   *The Lines of Nazca* (Anthony F. Aveni),  
     275 n.76  
   Linevskiy, A. M., 331, 331 n.15  
 Lintels, 201  
 Linton, Ralph, 125  
 Linton panel, 15  
*Listas* (bands), 267, 269  
 Literacy, 242–44  
 Little Bear. *See* Ki oo cus  
 Little Beaver Creek, 124  
 Liverpool River, clan estates on, 395, 397,  
   400, 401  
 Livingston, Robert  
   and map of St. Lawrence, Connecticut,  
   Hudson, and Susquehanna Rivers,  
   77, 78–79  
   map of Susquehanna River obtained by,  
   74–77, 138, 177, 179  
 Liwukang Bukurlatjipi. *See* Bukurlatjipi,  
   Liwukang  
 Lizards, 288  
 Llama “dark cloud” constellation, 277  
 Llamas, 269, 281, 282  
 Lodges  
   earth, 53, 54, 124, 125  
   in native North American rock art, 181  
 Loendorf, Lawrence L., 63  
 Logographs. *See* Hieroglyphs  
 Lokonos, 303, 303 n.4, 317  
 Lolo, 486  
*Lomas* pastures (fog-supported coastal veg-  
   etation), 277  
 London, England, Inuit perception of, 159  
 Longhouses  
   native North American, 53  
   South American and Caribbean, 306–7,  
   309, 316  
 Longitude  
   in “Bericht” of Jephtha, 323  
   on Guamán Poma's map of Inka empire,  
   295, 299  
   on modern Caroline Island nautical  
   charts, 469  
   omitted from native North American  
   birchbark maps, 80  
 Loops, 170  
 Lopa, Baharuddin, 488 n.113  
 Lopez, Barry, 56  
 Loquo, 303  
 Lords Harbor, 517  
 Lots, 184, 187  
 Louis (guide), 136, 138  
 Lowie, Robert, 491  
 Luba kingship  
   and *lukala* maps, 31–32  
   and *lukasa* memory boards, 1, 5, 10,  
   32–33, 48, *pl.2*  
   and mnemonic maps, 31–33  
 Lucayos. *See* Bahamas  
 Luiseño Indians, 112  
*Lukala* maps, 31–32  
*Lukasa* memory boards, 1, 5, 10, 32–33,  
   48, *pl.2*  
 Lunar World, 339  
 Lupaqa, kingdom of, 280  
*Lu pongank* (in the middle and athwart),  
   470  
 Lydenburg District, eastern Transvaal, 19,  
   21–22, 22  
 Lynn Canal, 117  
 Lyon, G. F., 159  
 Lyttelton. *See* Port Cooper  
 Máám, 470  
 Maasina, 35  
 Mabuiag Island, 399  
 Macassar  
   Australian Aboriginal plans of, 412–13,  
   414, *pl.22*  
   rock arrangements representing boats and  
   houses from, 411–12, 413  
 Macaw god, 310  
 McGrath, Robin, 169  
 Mackay, James, 525, 525 nn.115, 117,  
   528, 531  
 Mackenzie, Alexander, 143, 144  
 Mackenzie River, 143  
 McKerrow, James, 505–6, 508  
 Macknight, C. C., 411  
 McLean, Donald, 512  
 MacQueen, James, 35, 41  
 Macrae, Roderick, 505  
 McRae, Tommy, 411

- Madagascar, 8 n.35, 421, 541  
 Magaliesberg, 21  
 Magellan, Ferdinand, 444, 445, 451  
 Magellanic Clouds, 457, 457 n.42  
 Maggs, Tim, 538, 539  
 Magnetic compasses, 465  
   in Caroline Islands, 463–64, 469  
   used by Bugis, 488  
 Maguey fiber, 184, 186–87, 194–95, 196, 224, 541  
 Maguire, Rochfort, 157–58  
 Magur, 467, 468, 469  
 Mahakane, Northern Cape, 18  
 Mahamaes (cultivation sites), 273, 274  
 Mahele (portion, division, section), 495  
 Mahelona, John Kaipo, 486–87  
 Mahere (plan, portion, division, section), 494–95  
 Mahia Peninsula, 530  
 Maidu Indians, 115  
 Maiirgulidj clan estate, 395, 398, 399  
 Maine, 173  
   map of Rangeley Lakes region, 85, 86  
   maps of coastline, 68, 90, 91, 180 n.364  
 Mai ritual, 439, *pl.23*  
 Maize. *See also* Corn  
   on Andean textiles, 267  
   in Mesoamerican diet, 183  
   Mesoamerican pictograph for, 199  
   in Warao cosmology, 313  
 Makalii (the twins), 486  
 Makarenko, A. A., 343  
 Makarere (Makarora) River, 516–18 n.92  
 Maketu, 512  
 Makonnen, Ras, 45, 47, 48  
 Malagasy, 421  
 Malangan funerary art, 438–39 n.47  
 Malangi, David, 371–73, *pl.17*  
 Malaria, 427  
 Malawi, Lake, 38, 38 n.68  
 Malay Peninsula, 421  
 Mali, Bozo cartography, 28  
*Málikai* chants, 316–17  
 Malinowski, Bronislaw, 430  
 Mallery, Garrick, 173  
 Maloelap Atoll, 453  
 Maltese crosses  
   in Codex Fejérváry-Mayer, 229, 230, 231, 232, 253  
   in Codex Madrid, 232, 233, 255  
 Mamaku Plateau, 512  
 Mamalhuaztli (the Drill) (constellation), 239  
 Mamarika, Minimini, 369, 369 n.61, 370  
 Mana (influence, prestige, power), 503, 531  
 Manam Island, 440  
 Mananalo, 486  
 Manca, 280, 281  
 Manchus, 338  
 Manco Capac, 294–95, 299  
 Mandala, 181  
 Mandan Indians, 121, 123, 124, 133, 173, 179  
 Mandarka (bleached sealskin), 346  
 Man-fish, 80  
 Manganese, 370  
   Manganese oxide, 404  
   Mangareva Island, 461  
   Manggalili clan, 373, 374  
   Manggudja, 395, 398, 399  
   Manhattan Island, 68  
   Maní, map of, 197, 197 n.43, 209–10, 210–11, 241, 248–49  
   Maningrida, 395, 397, 400, 401  
   Manioc plant, 272  
   Manitoba  
     Jimmy Anderson and Curly Head's map of, 146, 148  
     La Vérendrye's map of, 144, 145–46, 179  
     map of Qu'Appelle River, 129  
     York Factory Indian map of, 146, 147  
   Manker, Ernst, 336  
   Manoa, 325  
   Mansi people, 342, 344  
   Mantell, Walter Baldock Durrant  
     map of New Zealand, 521, 521 n.101, *pl.24*  
     and *Map of the Colony of New Zealand from Official Documents by John Arrowsmith*, 521 n.102  
     and Te Ware Korari's maps, 494, 499, 520–23, 535, 537–38  
   Mantles  
     Paracas polychrome, 273–74, 297  
     *tocapu* designs on, 294  
   Manu' Whata-Te Runanganui o Ngāti Pikiao, 529  
   Man with Legs Ajar (constellation), 65, 67  
   Manyet, 409  
 Māoris, 493–536. *See also* New Zealand  
   cultural attributes, 495–500  
   and environment, 530  
   geographical orientation, 496–98  
   linear measurement, 495–96  
   map media, 531  
   maps  
     European accounts, 500–506, 508  
     extant and derivatives, 508–30, 533–36  
     by Hone Tūhawaiki, 495–96, 513–14, 516, 517, 533, 534  
     language concepts for, 494–95  
     made for Cook, 500–501, 530, 531  
     made for Europeans, 531  
     by Ngātai, 525, 526, 534  
     of North Island, 501, 503, 509–13, 534, 535, 536  
     obtained by von Haast, 523, 524  
     by Rakiraki, 520, 531, 534  
     by Rangitāne tribe, 499 n.33, 503  
     by Reko, 504–5  
     relating to land claims, 525–30  
     by Ropoama te One, 525, 525 n.115, 526–27, 531, 535  
     sources for, 531–32  
     of South Island, 494, 499 n.33, 503–6, 508, 514, 533, 534, 535  
     by Te Arawa *iwi*, 528–30, 536  
     by Te Huruhuru, 514, 516, 518–20, 531, 534  
     by Te Ware Korari, 494, 499, 520–23, 535, 537–38  
     by Toiawa, 495, 500, 500 n.37  
     by Tuki, 493, 494–95, 501, 506, 507, 508–9, 509 n.70, 531, 533  
     on *waka* paddle, 531 n.126  
     and place-names, 498–500, 539  
     and traveling, 530  
     women and cartography, 518 n.92  
   Mapa circular de Cuauhtuechollan, 196, 210, 212, 539  
   Mapa de Cuauhtinchan 1, 250–51  
   Mapa de Cuauhtinchan 2, 218–19, 222, 250–51  
   Mapa de Cuauhtinchan 3, 250–51  
   Mapa de Cuauhtinchan 4, 250–51  
   Mapa de la Provincias de los Aruacas, 323–24, 325  
   Mapa del Golfo y costa de Nuevo España, 95, 96  
   Mapa de Metlatoyuca, 184, 184 n.6, 188–89, 248–49  
   Mapa de Santa Cruz, 244, *pl.11*  
   Mapa de Sigüenza, 218, 219, 220, 222, 246, 248–49, 539  
   Mapa de Tezacoalco, 190, 220, 244  
   Mapa Pintado, 248–49  
   Mapa Quinantzin, 190 n.17, 205 n.66, 225 n.115  
   *Mapas*, 245–46  
   Mapa Tlotzin, 190 n.17  
   “A Map Describing the Situation of the Several Nations of Indians between South Carolina and the Massisipi River,” 99 n.164  
 Mapi (map), 495  
 Mapmaking. *See* Cartography  
 Map media  
   African  
     European influence on, 47–48  
     sand, 38–40, 41  
     tapestry, 45, 46  
   Andean  
     ceramics, 264–65, 266  
     clay, 285  
     cloth, 266–68, 269  
     *pallays*, 266–68, 269  
     pebbles, 285  
     sticks, 285  
   Australian Aboriginal, 354–55, 366–67, 539, 541  
   acrylic, 359, 362, 379, 382, 405, 405 n.49  
   bark, 354, 355, 359, 364, 364 n.47, 366, 367, 370, 372, 377–79, 379 n.88, 403, 404, 405, 405 n.49, *pl.18*  
   boards, 364, 366  
   bull-roarers, 539  
   canvas, 359, 379  
   crayon, 359, 362, 368, 369, 387, 388, 390, 391, 392, 393, 396, 397, 398, 400, 401, 410, 411, 412, 412 n.68, 413, 414, 415  
   dishes, 539  
   earth pigments, 411  
   gypsum, 370, 385  
   linen, 359  
   manganese, 370

- manganese oxide, 404  
 Masonite, 403–4, 407  
 “mud,” 405–8, 409  
 ochers, 357, 370, 372, 378, 385, 404,  
*pl.15, pl.17, pl.18, pl.20*  
 pencil, 399, 402, 411  
 pipe clay, 404  
 posts, 366, 539  
 rocks, 539  
 shields, 539  
 spear-throwers, 355, 357, 364  
 wash, 411  
 watercolor, 409, 410  
 wood, 359, 366, 370, 385
- Eurasian Arctic and Subarctic  
 bleached sealskin, 346, 349  
 blood, 341  
 coal, 343, 345  
 paint, 345  
 pencil, 339, 339 n.34, 346  
 snow, 339  
 wood and bark, 340–44, 345, 346, 348
- European, 197
- Māori, 531  
 chalk, 503, 508  
 charcoal, 500, 501, 530, 531  
 dust, 531  
 flax stalks, 525  
 knives, 531  
 pencil, 505, 508, 510, 520, 521, 531,  
 533, 534, 535  
 sand, 505, 505 n.52, 511, 525, 531  
 sticks, 531  
*waka* paddle, 531 n.126  
 watercolor, 499, 515, 533  
 wood, 531
- Melanesian  
 animal bones, 429, 430  
 cords, 428, 429  
 dirt, 435, 435 n.43, 436 n.44  
 knots, 428, 429  
 palm fronds, 428, 429  
 shields, 431, 432, 433
- Mesoamerican, 194–97  
*amatl* paper, 187, 196, 218, 222, 224,  
 248–49, 250–51, 252–53, 254–55,  
*pl.9*  
 animal skins, 194, 195–96, 248–49,  
 252–53  
 carved stone, 254–55  
 ceramics, 254–55  
 cloth, 187, 189, 194–95, 195 n.37,  
 203, 207, 215, 228, 248–49,  
 250–51, 252–53  
 gesso, 195–96, 248–49  
 maguey, 184, 186–87, 194–95, 196,  
 224  
 parchment, 194  
 walls, 194, 254–55
- native North American, 51, 174–76  
 animal skins, 68, 99, 108, 114, 115,  
 117, 123, 124, 125, 126, 127,  
 151, 173, 176, *pl.6*  
 bark, 77, 79–86, 142, 172, 173,  
 175–76, 180  
 chalk, 68, 69, 94, 144  
 charcoal, 68, 69, 84, 85, 86, 87, 88,  
 114, 129, 130, 138, 143  
 coal, 95  
 colored pencil, 115  
 corn, 68, 69  
 cornmeal, 69  
 crayon, 77, 78–79, 122, 123, 162  
 dirt/ground, 99, 108  
 grease, 84, 85, 86, 87, 88, 176  
 horn and bone, 114–15  
 ivory, 166–68, 169, 176  
 linen, 152  
 ocher, 84  
 paint, 85  
 parchment, 138  
 pencil, 73 n.79, 84, 85, 115, 118, 137,  
 148, 149, 151, 154, 161 n.322,  
 162, 164, 173, 176  
 rocks, 68, 69, 79, 159  
 sand, 112–13, 159, 172, 180 n.365  
 snow, 159  
 sticks, 67–68, 69, 159  
 wash, 154, 160  
 watercolor, 115, 118, 120, 121, 138  
 wood, 166–68, 169
- Oceanic  
 coral, 443, 453, 457  
 sand, 443, 453
- South American and Caribbean  
 beans, 319–20  
 colored pencil, 308 n.18  
 ocher, 308
- “Map of Native Encampment” (Galliput),  
 409
- Map of the Colony of New Zealand from  
 Official Documents by John  
 Arrowsmith*, 521 n.102
- A Map of Virginia, with a Description of  
 the Country, the Commodities,  
 People, Government and Religion*  
 (John Smith), 69, 71
- Mappaemundi*, 1–2, 538  
 by Guamán Poma, 295, 297, 299  
 Mesoamerican words for, 185, 185 n.10,  
 187  
 temporal aspect of, 193 n.29
- Mapping. *See* Cartography
- “Mapping the Americas” (exhibition) (Uni-  
 versity of Essex Exhibition Gallery,  
 England), 56 n.26
- Map production  
 Australian Aboriginal, 366–67  
 Mesoamerican, 197–98  
 in Oceania, 443  
 Yupno, 436 n.44
- Map Rock, Idaho, 62, 64, 65
- Maps  
 African  
 of Bamum, 42–44, *pl.3*  
 by Bello, 34–35  
 of Cameroon, 42, 44, 45  
 of Ethiopia, 45, 47, 48  
 of Njoya’s kingdom, 42–44  
 oral, 41  
 of Ouzzeine Valley, 41  
 political uses of, 43, 48  
 social discourse function, 48  
 solicited, 33–37  
 symbolic value, 44
- Andean  
 of Chuwa Chuwa, 263  
 of Cuzco Valley, 285  
 generated from Huarochirí Manuscript,  
 266  
 by Guamán Poma, 262–63, 264,  
 295–96, 298–99  
 of Inka empire, 295–96, 298–99  
*khipus* as, 293–94  
 of Lake Titicaca shoreline, 263–64, 264  
 n.27, 265  
 of Lambayeque River, 262, 264  
 Nazca lines as, 257 n.6  
 Q’ero *pallay*, 266–67, 267 n.38, 268,  
 297  
 Qheswa *pallay*, 267–68, 269, 297  
 San Andrés de Machaca, 263  
 astronomic (*see* Astronomy)
- Australian Aboriginal, 387–416  
 of Anmatyerre Country, 399–401, 402  
 of Arnhem Bay, 403, 404, 405  
 of clan estates, 395, 397, 398, 399,  
 400, 401  
 defined, 364  
 distinguished from icons, 362–64, 387,  
 405  
 distinguished from plans, 408–9  
 of Elcho Island, 397  
 European influence on, 389  
 of Fitzroy River, 390, 391  
 of Goromuru River, 402–3, *pl.21*  
 of Gove Peninsula, 397–98  
 identifying, 4  
 of Jaliarna area, Central Australia, 388  
 in land claims era, 405, 408  
 of Mabuiag Island and reefs, 399  
 major collections, 387–99  
 Berndt Collection, 392–99, 400, 401  
 South Australian Museum, 387–92,  
 393, 401, 415–16  
 by Mowaljarlai, 413–14, 415  
 mud maps and sand drawings, 405–8  
 of Murganella floodplain, 397  
 of Murrinh-patha countryside, 403–5,  
 407  
 of Napperby Station area, 401  
 and Nicholson River land claim, 405,  
 408  
 plans, 408–13  
 and politics and law, 408–13  
 purposes of, 365  
 smaller scholarly collections, 399–405  
 of south-central Australia, 394–95, 396  
 of transformations, 364–65  
 of Yalangbara, 413, 414  
 boundary (*see* Boundary maps)  
 cadastral (*see* Cadastral maps)  
 Caribbean (*see* Maps, of South America  
 and Caribbean)  
 celestial (*see* Celestial maps)  
 circle (*see* Circular maps)  
 cosmographic (*see* Cosmography)  
 cross-cultural comparisons of, 8–9

- Maps (*cont.*)  
 defined, 1–2, 6, 24–25, 51, 258, 301, 537, 537 n.1  
 displayed, 3  
 dream (*see* Dream maps)  
 ephemeral (*see* Ephemeral maps)  
 of Eurasian Arctic and Subarctic  
 Amur estuary, 339  
 by Antonov, 340  
 Chukchi wooden board maps, 341–42, 343  
 by Enkachan, 340  
 Gilyak kingdom, 339  
 Kurile Islands, 338–39  
 Maya River and Sea of Okhotsk, 339 n.36  
 Russia, 339, 340 n.36  
 Russian Arctic, 330 n.8  
 Tartary, 330  
 European  
 of Benue River system, 40–41  
 of central Sahara, 38, 38 nn.69, 70  
 of eastern and central Africa, 41  
 of Lake Malawi region, 38, 38 n.68  
 medieval, 29 n.31  
 of southern Ethiopia, 41  
 stylized political boundaries on, 285 n.130  
 of Tuareg grazing areas, 38–40, 41  
 usage of, 182  
 of Wangara, 38, 39  
 gestural (*see* Gestures, as maps)  
 Inka  
 lack of surviving, 257–58  
 in native manuscripts, 294–97, 298–99  
 itinerary (*see* Itineraries; Itinerary histories)  
 Māori  
 drawn for Cook, 500–501, 530, 531  
 European accounts of, 500–506, 508  
 extant, 506, 507, 508–30, 533–36  
 by Hone Tūhawaiki, 495–96, 513–14, 516, 517, 533, 534  
 made for Europeans, 531  
 by Ngātai, 525, 526, 534  
 of North Island, 501, 503, 509–13, 534, 535, 536  
 obtained by von Haast, 523, 524  
 by Rakiraki, 520, 531, 534  
 by Rangitāne tribe, 499 n.33, 503  
 by Reko, 504–5  
 relating to land claims, 525–30  
 by Ropoama te One, 525, 525 n.115, 526–27, 531, 535  
 sources for, 531–32  
 of South Island, 494, 499 n.33, 503–6, 508, 533, 534, 535  
 by Te Arawa *iwi*, 528–30, 536  
 by Te Huruhuru, 514, 516, 518–20, 531, 534  
 by Te Ware Korari, 494, 499, 520–23, 535  
 by Toiawa, 495, 500, 500 n.37  
 toponyms used without, 498  
 by Tuki, 493, 494–95, 501, 506, 507, 508–9, 509 n.70, 531, 533  
 on *waka* paddle, 531 n.126  
 Māori language concepts for, 494–95  
 Melanesian, 4–5, 425–42  
 artistic and ritual, 438–40, 441, *pl.*23  
 Chambri maps of land claims, 436–38, 440, 441  
 existence of, 425  
 gendered, 440–42  
 genealogies and society as, 428  
 gift exchange as, 429–31  
 graphic and written, 435–38, 439, 440, 441  
 Iatmul world map drawn in dirt, 435  
*kirugu* cords, 428, 429  
 myth as, 426–28  
 objects as, 428–34  
 representational, 425–26 n.9  
 shields as, 431, 432, 433  
 songs as, 434–35  
*tsagi-mboe*, 428, 429  
 using animal bones, 429, 430  
 verbal, 434–35  
 mental (*see* Mental maps)  
 Mesoamerican, 221–29  
 of Amoltepec, 196, 240–43, 248–49  
 cartographic histories, 204–18, 248–51  
 categories of, 187, 189  
 celestial, 237–40, 254–55  
 census of, 248–55  
 of Cholula, 215, 219, 222, 225, 250–53  
 in Codex Aubin, 196, 252–53  
 in Codex Borbonicus, 200  
 in Codex Borgia, 196, 200, 201, 241, 252–53  
 in Codex Boturini, 218, 218 n.98, 219, 220, 221, 246, 248–49  
 in Codex Florentine, 252–53  
 in Codex Meixueiro, 250–51  
 in Codex Mendoza, 190–91, 192–93, 193–94, 193 n.32, 196 n.38, 198, 199, 200, 225, 225 n.115, 235–37, 244, 252–53  
 in Codex Nuttall, 200, 201, 215–18, 242, 248–49  
 in Codex Selden, 200, 201  
 in Codex Vienna, 200, 201, 204, 218  
 in Codex Xolotl, 190, 196, 196 n.38, 200, 205–7, 208, 210, 218, 220, 248–49, 539–40, *pl.*9  
 of Coixtlahuaca, 250–51  
 Coixtlahuaca group, 184–85 n.6, 207, 207 n.70, 219, 250–53  
 of Coixtlahuaca Valley, 250–51  
 by Cortés, 244  
 of Cuauhquechollan, 196, 210, 212  
 of Cuauhtinchan, 205, 206, 207, 218–19, 220, 222, 248–49, 250–51, 253  
 Cuauhtinchan group, 250–51  
 defined, 184–89  
 of Don Miguel Damian's property, 225, 226, 252–53  
 hieroglyphs used for toponyms on, 190–91  
 in Historia tolteca-chichimeca, 196, 205, 206, 207, 215, 220, 225, 246–49, 252–53  
 palace complexes on, 225 n.115  
 on Humboldt Fragment 2, 200, 222, 222–23, 252–53  
 itinerary histories, 218–20, 221, 222  
*lienzos* (*see* Lienzos)  
 of Maní, 196, 197, 197 n.43, 209–10, 210–11, 241, 248–49  
 Mapa de Santa Cruz, 244, *pl.*11  
 Mapa de Sigüenza, 218, 219, 220, 222, 246, 248–49, 539  
 Mapa Quinantzín, 190 n.17, 205 n.66, 225 n.115  
 Metlatoyuca, 184, 184 n.6, 188–89, 248–49  
 of northern Yucatan, 210  
 Oztoticpac lands map, 196, 252–53  
 Plano de San Andres Sinaxtla, 196  
 Plano en papel de maguey, 184, 186–87, 196, 224, 252–53  
 in Primeros memoriales, 225, 225 n.116, 227, 252–53  
 property plans, 221–24, 224–25, 226, 252–53  
 in Relaciones geográficas, 196, 200, 201, 244–45, 246, 248–49  
 related to *pochteca*, 227–28  
 relations between permanent and gestural cartographic histories, 220–21  
 of Sotuta, 196, 210  
 of Tenochtitlan, 192–93, 193–94, 195, 225, 225 n.116, 227, 228 n.121, 235–37, 244, 252–53  
 of Tezacoalco, 196, 210, 212, 213, 220, 244, 248–49  
 of Tepetlaoztoc, 184, 189, 244, 250–51  
 of Tetlitzaca, 245, 246  
 for trading and war, 225–29, 252–53  
 types of, 204–40  
 of urban centers, 225, 227, 252–53  
 words for, 185  
 of Zolipa, Veracruz, 243, 244  
 message (*see* Message maps)  
 mnemonic (*see* Mnemonic maps)  
 native North American, 51–182  
 access and conservation, 54–55  
 approach, 57  
 Arctic, 154–70  
 ephemeral maps, 159  
 Euro-American perceptions, 157–59  
 maps in late twentieth-century Inuit art and social policy, 169–70  
 maps on ivory and wood, 166–68, 169  
 maps on paper, 159–66  
 cartobibliography of, 56  
 cartographic affinities between Eurasian and American Arctic and Subarctic regions, 170–72  
 far western, 106, 108–15, 116–17, 118  
 early mapping encounters: Spanish, 106, 108  
 ephemeral maps, 113–14



- Lewis and Clark expedition, 114–15  
 modeled maps, 112–13  
 other maps on paper, 115, 116–17, 118  
 ritual and cosmographic maps, 108–12
- Great Plains and Canadian prairies, 115, 116–35, 136, 137  
 celestial maps, 123–25, *pl.7*  
 made for Euro-Americans: seventeenth century, 125–28  
 nineteenth-century ephemeral maps, 128–29  
 nineteenth-century maps made on paper, 129–35, 136, 137  
 pictorial maps, 117–23, 124
- historiography, 55–56  
 importance of cosmography, 53–54  
 indigenous roles of, 179–82  
 information content, 178–79  
 large-area, 177, 177 nn.358, 359  
 northeastern, 66–94  
 birchbark maps, 79–86  
 on blazed trees, 87–88  
 ephemeral, 67–71, 72  
 made for Europeans, 71–79, 80, 81  
 message maps, 84–86  
 on skin, 90–94  
 wampum maps, 88–90
- physical attributes (media), 174–76  
 precontact, contact, and postcontact, 51–52
- relating to Beothuk Indians, 73 n.79
- rock art, 57, 61–66, 64, 65, 67
- southeastern, 94–106, 107  
 boundaries and mapping, 105–6, 107  
 early mapping encounters, 95–99  
 made for colonial authorities, 99–103, 104, 105  
 other mapping encounters, 103, 105
- structure, 176–78
- Subarctic, 135–54, 155, 156  
 on bark and skin, 135–39, 140, 141  
 design biting, 142–43  
 made during European-Indian interaction, 143–54, 155, 156  
 scapulimancy, 139, 141–42
- three-dimensional, 168, 169, 176
- usage of compared with European map usage, 182
- words for, 52–53
- of New Zealand  
 Māori toponyms on, 499–500  
 North Island (*see* North Island, maps of)  
 relating to Māori land claims, 525–30  
 repositories, 531–32  
 South Island (*see* South Island, maps of)  
 by Te Ware Korari, 537–38  
 by Tuki, 493, 494–95, 501, 506, 507, 508–9, 509 n.70, 531, 533
- of North America  
 Acktis Island, 112, 113, 180  
 by Aikon Aushabuc, 52, 68–69  
 Alaska, 143, 157, 158  
 Arctic Bay (Cape Dorset), 169–70  
 Belcher Islands, 155, 164, 165  
 Black Hills, 55, 120–21, 123, 176, 179  
 British Columbia, 115, 116–17  
 Bull Creek valley, 68  
 canoe route from Lake Athabasca to Thelon River, 149, 152–53  
 Cape Ann, 68  
 Cape Fullerton, 160–65  
 Catawba map, 99, 101, *pl.4*  
 Charlton Island, 151–52, 154, 156, 173, 179  
 Chesapeake Bay, 67, 67 n.60, 68, 69–70, 72  
 Chickasaw map, 99–101, 115 n.217, 173, 176  
 Colorado River, 61–62, 63, 108, 172, 177  
 Coteau des Prairies, 126–28  
 Cumberland Sound, 170 n.336  
 forest-tundra boundaries in northern interior, 149  
 Greenland, 167–68, 169  
 Hudson Bay coastline, 165–66  
 by Huron Indians, 67 n.60  
 Indiana and Illinois, 90–91, 92, 93  
 James River, 68, 68 n.64  
 from John Scotts Lake to Wikusko Lake, 154  
 Keewatin District, 161–62, 164–65, 179, 180  
 Kraus Virginia map, 69–70, 72  
 Lachine Rapids, 67–68  
 Lachine Rapids and upper St. Lawrence River, 172  
 Lake Nipigon, 149, 151, 154, 155, 177  
 Lake Ontario, 142 n.280  
 by Lamhatty, 96–99  
 land between Repulse Bay and Prince Regent Inlet, 159, *pl.8*  
 Maine, 68, 85, 86, 90, 91, 180 n.364  
 Manhattan Island, 68  
 Manitoba, 144, 145, 145–46, 147, 148, 179  
 by Martínez, 126, 126 n.240  
 by Meatonabee and Idotlyzee, 146, 146 n. 291, 149, 150–51, 165  
 Melville Peninsula, 157  
 Melville Peninsula and Baffin Island, 159, 160, 164–65  
 Mississauga boundary map, 77, 79, 179  
 Mississippi and Missouri Rivers, 134–35, 136, 137  
 Mississippi River, 129, 130  
 Missouri and South Saskatchewan Rivers, 129–32  
 Moisie River, 136, 138, 180  
 New Hampshire, 91 n.133  
 New Mexico, 125–26, 127, 177, 179  
 northeastern California, 115, 118  
 northern and central Plains, 132–33, 134, 135  
 northwestern Canada, 143–45, 149, 152  
 by Oneida Indians, 68  
 Pequot country, 73, 179  
 by the Pheasant, 68  
 Pokanoket land to be sold, 73–74, 179  
 Qu'Appelle River, 129  
 Rocky Mountains, 132, 133  
 route from Richmond, Virginia, to the Appalachians, 68  
 by Skiko, 67 n.60  
 St. Lawrence, Connecticut, Hudson, and Susquehanna Rivers, 77, 77 n.81, 78–79, 178  
 St. Lawrence–Great Lakes, 82, 83  
 St. Lawrence River, 67–68, 71–72  
 de Soto expedition map, 95, 96, 97–98  
 Susquehanna River, 74–77, 138, 177, 179  
 territory west of Lake Superior, 145 n.287  
 Velasco map, 70–71  
 Victoria Island, 157  
 Virginia, 69–70, 70 n.76, 71, 72  
 western Canada, 136–38, 140–41, 149  
 Yukon Territory, 115, 116–17, 143
- Oceanic, 418  
 by Cantova, 453, 454  
 by Klein, 452, 453, 489  
 by Kotzebue, 453–54, 456–57  
 modern map of Caroline Islands, 455  
 modern map of Marshall Islands, 457  
 settlement of Remote Oceania, 420  
 by Tupaia, 446–51  
 pictorial (*see* Pictorial maps)  
 reference (*see* Reference maps)  
 reversing marginalization of, 9–10  
 route (*see* Route maps)  
 of South America and Caribbean  
 Caribbean islands, 319–20  
 Hipana village, 319, 320  
 Mapa de la Provincias de los Aruacas, 323–24, 325  
 by Raleigh, 324–25  
 Ye'cuana historical-cultural map, 321–22  
 territorial (*see* Territorial maps)
- Maps and Dreams* (Hugh Brody), 56  
 “Maps of Territory, History, and Community in Mesoamerica” (Elizabeth Hill Boone), 56 n.29
- Maquetas* (models of architectural compounds), 279, 279 n.101, 299  
 and layout of Cuzco, 285  
 of temple upper court at Moquegua, Peru, 282  
*yupanas* as, 291 n.165
- Marcus, Joyce, 215  
 Mardarra clan, 376  
 Mare, E. *See* E Mare
- Marginalization of maps, 9–10
- Margulidjban, 395, 397, 400, 401
- Mariana Islands, 420, 421, 451, 474
- Marika, Mawalan, 398 n.34, 410  
 drawing of Macassan prau, 412 n.68  
 map by, 413, 414
- Marika, Wandjuk, 398, 403, 406, 410
- Maritime Chukchi/Asian Eskimos, 171

- Markers, on Inka roads, 289, 290  
*Mārō* (unit of measurement), 496  
 Marquesas Islands  
   European exploration, 445  
   and finding Rapa Nui, 461  
   as reference for modern canoe voyage, 474  
   settlement, 420  
   on Tupaia's chart, 448 n.19, 450  
 Marquette, Jacques, 124 n.231  
 Marriage  
   in Codex Xolotl, 539–40  
   in *ida* ritual, 440, 441  
   Inka rules for in Cuzco Valley, 260  
   and village positioning, 305  
 Mars, 237–38, 255, 486  
 Marshall, James A., 95 n.148  
 Marshall Islands  
   cartography in, 4  
   Kotzebue's chart of, 453–54, 456–57  
   location, 476  
   modern map of, 457  
   persistence of traditional navigation, 454  
   piloting by swell pattern, 475–85  
   settlement, 420, 421  
   stick charts, 1, 6 n.22, 443, 444, 475, 476, 479–85, 487, 489–92  
   women and navigation in, 455  
 Marshes, 80, 531 n.125  
 Martens, 80  
 Martin, David, 377 n.82, 379 n.87  
 Martínez, Enrico, 126, 126 n.240  
 Marutse empire, 35  
 Mary's River, 113  
 Mask of Black God, 65  
 Masks, 274, 275, 299  
 Masonite, 403–4, 407  
 Massa, Isaac, 330 n.8  
 Massachusetts, Pokanoket land to be sold, 73–74, 179  
 Massachusetts Indians, 68, 74, 180 n.364  
 Massim region, 427 n.14, 430–31  
 Master of Animals, 308, 309  
 Masts, 470 n.74  
 Matacuni tributary, 321  
*Matā* (flint or obsidian), 493, 501 n.41  
 Mataiva, 474  
*Mātara* (obsidian), 493  
 Mataura River, 505, 517  
 Matau (Matou) River (Molyneux, Clutha), 505, 505 n.56, 518, 520  
 Material cartography, 5  
*Materiales para una cartografía mexicana* (Manuel Orozco y Berra), 190  
 Mathaman, 398 n.34  
 Mathes, W. Michael, 61  
 Mathias River, 524  
 Matienzo, Juan de, 291  
 Matinino, 324  
 Mato *tīpi paha*. *See* Devils Tower (Bear Lodge Butte)  
 Matou River. *See* Matau River  
*Mattang* stick charts, 479–80, 481, 484, 485  
*Mat̄judi*, 402–3, *pl.*21  
 Mauli, 486  
 Mauss, Marcel, 423  
 Mauwalan Marika. *See* Marika, Mawalan  
 Mawalan Marika. *See* Marika, Mawalan  
 Mawāri (swallow-tailed kite), 311  
 Mawhera River. *See* Grey River  
 Maxwell, Thomas, 525  
 Maya Indians, 109 n.193  
 Maya River, 339 n.36, 340  
 Mayas, 183  
   and cartographic histories, 208–10, 211  
   celestial mapping, 237–38  
   and circular maps, 539  
   cosmography, 203, 232, 233  
   on ceramic plate, 233–34, 235, 254–55  
   representations of earth's surface, 200 n.54  
   and hieroglyphs, 199  
   and landscape painting, 256  
   language, 208, 248–49, 254–55  
   and *lienzos*, 195 n.37  
 Lord Pacal's sarcophagus lid, 234–35, 237, 254–55  
 map media used by, 196–97  
 and map of Maní, 197, 197 n.43, 241  
 Maya-Spanish dictionary, 185 n.9  
 petroglyphs from Planchón de las Figuras, 225 n.115  
 Quiché, 204, 236–37  
 reference map of region of, 210  
 and spoken boundary maps, 220 n.101  
 surviving maps from, 196  
 and trade maps, 228–29 n.124, 228 n.123, 229  
 writing, 198, 209  
 zodiac, 237 n.150  
 Maymuru, Narritjin, 361 n.38, 373, 374, 398 n.34  
 Maymuru, Banapana, 366, 373, 374, *pl.*18  
 Mayor Island (Tūhua), 501 n.41  
 Mayu (celestial river) (Milky Way), 260, 260 n.14, 261  
 Mayviimbiit Mountain, *pl.*23  
 Mazes, 274, 275  
*Mbima* alphabet, 42  
 M'bo, 36  
 Mbouémboué, King, 43 n.87  
 Mburu, 428  
 Mdewakanton Indians, 58  
 Meadows, 80  
 Measurement, 538  
   Inkas and, 289, 289 n.156  
   Māori, 495–96  
   on Mesoamerican maps, 203–4, 226  
   units of, 538  
   Carolinian, 473  
   Inka, 289 n.156, 290  
   league, 79  
   Māori, 496  
   Mesoamerican, 203  
   miles, 79  
   native North American, 176  
   on Woleai Atoll, 465  
 Meatonabee, 114, 146, 146 n.291, 149, 150–51, 165  
 Mecca, 29, 39  
 Medallions, 43, 43 n.82  
*Meddo* (*medo*) stick charts, 479, 480, 482, 483, 484, 485, 491  
 Medicine, 172–73  
 Medicine wheels, 54, 63 n.46  
 Medieval Christian maps, 539  
 Mediterranean, 330  
 Meeting houses, 485 n.105  
 Mehinaku people, 311, 320–21  
 Mejía Xesspe, Toribio, 274  
 Mejprat people, 435  
 Mekeo people, 441  
 Melanesia. *See also* Oceania; and *specific islands*  
   cultural diversity, 423  
   defined, 419  
   influence on Australian Aborigines, 354 n.4  
   on map of Oceania, 418  
   map production, 540  
   maps from, 4–5, 425–42  
   artistic and ritual, 438–40, 441, *pl.* 23  
   celestial, 427–28  
   Chambri maps of land claims, 436–38, 440, 441  
   existence of, 425  
   gendered, 440–42  
   genealogies and society as, 428  
   gift exchange as, 429–31  
   graphic and written, 435–38, 439, 440, 441  
   Iatmul world map drawn in dirt, 435  
   *kirugu* cords, 428, 429  
   myth as, 426–28  
   objects as, 428–34  
   shields as, 431, 432, 433  
   songs as, 434–35  
   *tsagi-mboe*, 428, 429  
   using animal bones, 429, 430  
   verbal, 434–35  
   settlement, 420, 423  
   social life, cosmology, and politics, 423–25  
 Meliki  
   map of Cape Fullerton Harbor by, 160–61  
   map of Keewatin District by, 161–62, 164–65, 179, 180  
 Melka Zadek, 30  
 Melville Peninsula  
   on Auld's map of Hudson Bay, 166  
   Iglulik maps of, 157  
   Illigliak's map of, 159, 160, 164–65  
   omitted from native North American maps, 146  
 Memory boards. *See* *Lukasa*  
 Men. *See also* Gender  
   and Eurasian Arctic and Subarctic maps, 342–43 n.51  
   South American and Caribbean, 305  
   and southern African engravings, 22–23  
 Mendaña de Neira, Alvaro, 445  
 Mendoza, Antonio de, 108, 258  
   and Codex Mendoza, 193 n.32  
   and maps to prove land claims, 241, 242, 243, 245  
 Menelek, 30

- Menelik, Emperor, 47
- Mensuration. *See* Measurement
- Mental maps, 3–4, 4 nn.9, 10, 443–44, 488 n.116
- Mental Maps* (Peter Gould and Rodney White), 4
- Mercator projection, 453–54, 469
- Merced* (land grant), 241, 245
- Mercury, 291, 486
- Meridians
  - on Bad Heart Bull's map of Black Hills, 120, 123
  - on diagram of Chickasaw map, 101
  - on map drawn by Largeau, 36–37
- Merlan, Francesca, 357
- Merlo J., Eduardo, 184–85 n.6
- Merrimack River, 68
- Mertz, Henriette, 62–63 n.46
- Mesa de Maya, 129
- Mesas* (arrangements of power objects), 269, 269 n.46, 270
- Mesoamerica, 183–256
  - alphabets, 242–44
  - architectural pictographs, 198, 201
  - blending of map and itinerary, 539–40
  - cartographic conventions, 198, 242–44
  - cosmography, 229–37, 238, 252–55
    - architecture and, 197
    - on ceramics, 232–34, 235
    - cities in, 235–37
    - in Codex Borgia, 232 n.132, 241
    - in Codex Fejérváry-Mayer, 234, 235–37, 240, 241
    - in Codex Madrid, 232, 233
    - in Codex Ríos, 234, 234 nn.136–38, 237, 239, 240, 241
    - diagram of, 229
    - Olmec, 234, 234 n.140
    - and religious conversion, 241
    - rulers and, 234
    - sculptures and, 197
    - on Tizoc stone, 235, 238, 254–55
  - defined, 183, 183 n.4
  - demography, 240–41
  - dictionaries, 185, 187
  - geographic pictographs, 198, 200
  - historiography, 189–91
  - judicial system, 241, 242, 243
  - lack of influence on Western cartography, 191
  - landscape painting (*see* Landscape painting, Mesoamerican)
  - land tenure system, 221
  - map media, 194–97
  - map production, 197–98
  - maps of, 98
    - Amoltepec, 240–43, 248–49
    - cadastral, 221–24, 252–53
    - cartographic histories, 204–18, 220–21, 248–51
    - categories, 187, 189
    - celestial (*see* Celestial maps, Mesoamerican)
    - census, 248–55
    - Cholula, 215, 219, 222, 225, 250–53
    - circular, 539
    - circumambulation ritual and, 4
      - in Codex Aubin, 196, 252–53
      - in Codex Borbonicus, 200
      - in Codex Borgia, 241, 252–53
      - in Codex Borurini, 218, 218 n.98, 219, 220, 221, 246, 248–49
      - in Codex Florentine, 252–53
      - in Codex Kingsborough, 250–51
      - in Codex Meixueiro, 250–51
      - in Codex Mendoza, 190–91, 192–93, 193–94, 193 n.32, 196 n.38, 198, 199, 200, 225, 225 n.115, 235–37, 244, 252–53
      - in Codex Nuttall, 200, 201, 215–18, 242, 248–49
      - in Codex Selden, 200, 201
      - in Codex Vienna, 200, 201, 204, 218
      - in Codex Xolotl, 190, 196, 196 n.38, 200, 205–7, 208, 210, 218, 220, 248–49, 539–40, *pl.*9
    - Coixtlahuaca, 250–51
    - Coixtlahuaca group, 184–85 n.6, 207, 207 n.70, 219, 250–53
    - Coixtlahuaca Valley, 250–51
      - by Cortés, 244
    - Cuauhquechollan, 210, 212
    - Cuauhtinchan, 205, 206, 207, 218–19, 220, 222, 248–49, 250–51, 253
    - Cuauhtinchan group, 250–51
    - Don Miguel Damian's property, 225, 226, 252–53
    - European influence on, 212 n.83, 247
    - formats, 196
    - hieroglyphs used for toponyms on, 190–91
    - in Historia tolteca-chichimeca, 205, 206, 207, 215, 220, 225, 225 n.115, 246–47, 248–49, 252–53
    - on Humboldt Fragment 2, 200, 222, 222–23, 252–53
    - itinerary histories, 187, 218–20, 221, 222
    - lienzos* (*see* *Lienzos*)
    - Maní, 196, 197, 197 n.43, 209–10, 210–11, 241, 248–49
    - Mapa de Santa Cruz, 244, *pl.*11
    - Mapa de Sigüenza, 218, 219, 220, 222, 246, 248–49, 539
    - Mapa Quinantzin, 190 n.17, 205 n.66, 225 n.115
    - Metlatoyuca, 184, 184 n.6, 188–89, 248–49
    - military maps, 225–29, 252–53
    - northern Yucatan, 210
    - Oztoticpac lands map, 196, 252–53
    - Plano en papel de maguey, 184, 186–87, 196, 224, 252–53
    - in Primeros memoriales, 225, 225 n.116, 227, 252–53
    - property plans, 221–24, 224–25, 226, 252–53
    - reference, 184
      - Cuauhtinchan lands, 207
      - Maya region, 210
      - Mixtec region, 209
      - in Relaciones geográficas, 196, 200, 201, 244–45, 246, 248–49
      - related to *pochteca*, 227–28
      - Sotuta, 196, 210
      - Tenochtitlan, 192–93, 193–94, 195, 225, 225 n.116, 227, 228 n.121, 235–37, 244, 252–53
      - Teozacoalco, 196, 210, 212, 213, 220, 244, 248–49
      - Tepetlaoztoc, 184, 189, 244, 250–51
      - Tetlitzaca, 245, 246
      - trade maps, 225–29, 252–53
      - types of, 204–40
      - urban, 225, 227, 252–53
      - Zolipa, Veracruz, 243, 244
    - mensuration, 203–4
    - petroglyphs, 225 n.115
    - pictographs, 198–200, 201
    - scripts from compared with Mide writing and Southwestern sandpainting, 109 n.193
    - spatialization of time, 191–204
    - stelae, 184, 185, 234, 235, 254–55
    - timekeeping, 183
    - writing, 198–200, 201
- Message maps
  - Eurasian Arctic and Subarctic, 342–43, 344, 345
  - native North American, 84–86, 180, 180 n.362, 342
- Messages, 290
- Metacom. *See* Philip, King
- Metaphors
  - in Andean cartography, 258, 268–69, 278, 295, 299
  - in Chavín art, 273 n.63
- Metlatoyuca (Metlatoyuca) region, 184 n.6. *See also* Mapa de Metlatoyuca
- Mexico. *See also* Mesoamerica; Valley of Mexico
  - circumambulation ritual and mapping, 4
  - Comanche raids into, 128–29, 180
  - cosmographic stela at Izapa, 185, 234, 235, 254–55
  - Mapa de Santa Cruz, 244, *pl.*11
  - maps of, 62 n.46, 196
  - on Miguel's map, 126
  - as part of Mesoamerica, 183
  - rarity of *lienzos* in, 195 n.37
  - reference map, 207
  - systems of land tenure, 213, 213 n.84
- Mexico City, 183, 213
  - on Mapa de Santa Cruz, 244, *pl.*11
  - on Miguel's map, 126
- Mfêmê* alphabet, *pl.*3
- Miami Indians, 96 n.156
- Mica, 152, 154
- Michigme, 348, 349
- Mickey of Ulladulla, 411
- Micmac Indians, 52, 68–69
- Micronesia. *See also* Oceania; and specific islands
  - cartography in, 4
  - and contact with islands to the west, 489
  - defined, 419
  - on map of Oceania, 418

- Micronesia (*cont.*)  
 persistence of traditional navigation, 454  
 settlement, 420–21  
 Spain establishes outpost in Mariana Islands, 451
- Mictlampa* (land of the dead), 230
- Middle East, 330
- Middle Island. *See* South Island
- Midewiwin (Mide) (grand medicine society), 82–83, 84 n.107, 109 n.193, 177, 181 nn.365, 366
- Midjau-Midjawu, 364 n.44
- Miertsching, F. A., 158–59
- Migration  
 in Arctic and Subarctic Eurasia, 329  
 Mesoamerican, 204, 218–20, 221, 222  
 in Warao cosmology, 311
- Migration scrolls  
 Delaware, 82 n.99  
 Ojibwa, 55, 82–84, 177, 181 nn.365, 366
- Miguel, 125–26, 127, 177, 179
- Milbrath, Susan, 239 n.155, 240
- Miles, Robert, 151
- Miles (unit of measurement), 68, 79
- Miles, nautical, 469
- Milgari Creek, 392
- Mili Island, 480, 482
- Milirrpum, 398 n.34
- Militarism, 257
- Military maps, Aztec, 225–28, 252–53
- Milkfish, 377, 377 n.81, 378
- Milkimadlentji, 370
- Milky Way  
 and Andean spatial organization, 262  
 apparent rotation of, 261  
 Boigu view of, 428  
 on Koryak dancing coat, 334, 336, *pl.14*  
 in Navajo Male Shootingway, *pl.5*  
 in Navajo sandpainting, 109, 110  
 on Nasca pottery, 277  
 on Pawnee celestial chart, *pl.7*  
 in Quechua celestial organization, 260, 261  
 in South American and Caribbean celestial mapping, 304, 305  
 in South American and Caribbean cosmology, 310, 318  
 in Tabwa scarification, 31  
 on Tello Obelisk, 272, 273
- Mill Creek, 118
- Miller, William C., 64
- Milligan, Robert Roy Douglas, 494–95, 508, 508 nn.67, 69
- Milmich* (field of fish), 224
- Milmindjarr', *pl.17*
- Minerals, 301
- Mingo Ouma, 101, 103
- Minimic, Chief, 118
- Minimini Mamarika. *See* Mamarika, Minimini
- Minnesota River, 126–28, 179
- Mirroring (cosmographical principle), 120–21, 125, 176
- Missionaries  
 and “Bericht” of Jeptha, 322  
 lack of in Soviet Union, 330  
 and Lapp drums, 336  
 in Philippines, 451–52, 453  
 and Sami drum, 337  
 and South American and Caribbean petroglyphs, 309  
 and stick charts, 491
- Mississauga Indians, 77, 79, 179
- Mississippian period, shell cup from, 57, 103, 103 n.172, 105
- Mississippi River  
 on Chickasaw map, 100, 100 n.167, 101  
 La Moyné d’Iberville and, 103, 105  
 maps of, 95  
 by Non-Chi-Ning-Ga, 134–35, 136, 137, 177–78  
 Wahpekute, 129, 130  
 on Ojibwa migration scroll, 83
- Missouri River, 133 n.255  
 on Ac ko mok ki’s map, 133  
 on Gero-Schunu-Wy-Ha’s map, 132, 134  
 in Howling Wolf’s ledger art, 118, 120  
 maps of  
 by Ki oo Cus, 129–32, 161, 179  
 by Non-Chi-Ning-Ga, 134–35, 136, 137, 177–78  
 by Sitting Rabbit, 121, 123, 124, 133, 173, 179  
 on Writing Rock, 63 n.46
- Missouri River Commission, 121, 123, 124, 173
- Mistassini Cree Indians. *See* Cree Indians
- Mit’a* system, 277
- Mitjimanamana, 370
- Mitlantongo region, 248–49
- Mixtecs, 183  
 architectural pictographs, 201  
 and circular maps, 210, 212, 213, 214, 539  
 and cloth maps, 195  
 and Codex Fejérváry-Mayer, 229  
 and Codex Nuttall, 215–18  
 and Codex Vienna, 204  
 and hieroglyphs, 199  
 hill pictograph, 200  
 language, 187, 187 n.12  
 maps in, 248–49, 252–53  
 and Lienzo of Zacatepec 1, 201, 202–3, 207–8, 209, 213  
 manuscripts compared with landscapes in Temple of the Warriors, 184 n.5  
 and Mapa de Tezacoalco, 244  
 map of Amoltepec, 240–41  
 and measurement, 204  
 and pictographs, 199–200, 200 n.53  
 reference map of region of, 209  
 rock pictographs, 200  
 screenfold manuscripts, 190, 208 n.72  
 study of maps by, 191  
 and Texupa, 204  
 water pictographs, 200  
 and Zacatepec, 209
- Mnemonic maps, 25, 30–33
- Mobile, Alabama, 103
- Mobile Bay, 100 n.167
- Mobilian language, 99–100 n.166
- Moche culture, 278–79, 280, 288
- Models, 3, 5, 112–13  
 Andean (*see also Maquetas*), 282, 287–88, 289  
 South American and Caribbean, 320
- Moe-hau. *See* Cape Colville
- Mohave Rock, 61–62, 63
- Mohawk Indians, 89, 90
- Mohawk River, 77
- Mohegan Indians, 73
- Mohi Turei, 497
- Moieties, 261–62  
 on Bolivian amulet, 269  
 and cosmology, 311  
 drawing of house of Manco Capac and, 295  
 on *khipus*, 293  
 in Pacariqtambo, 270  
 Q’ero, 263  
 on Qheswa *pallay*, 269  
 Quinua, 264  
 in San Andrés de Machaca, 262, 263  
 Tiwanaku and, 280
- Moinun River. *See* Noun River
- Möisel, Max  
 and mapmaking in Bamum, 41, 42 n.77  
 maps of Cameroon, 42, 44, 45
- Moisie River, 136, 138, 180
- Mōkilmōkihi* (rafts), 530
- Mokoia Island, 528
- Molina, Alonso de, 187, 187 n.11
- Molina, Cristóbal de, 265, 284, 291
- Molyneux, Robert, 505 n.56
- Molyneux River. *See* Matau River
- Monacan Indians, 68
- Money, 489
- Monkeys, 288, 339
- Monongahela River, 88
- Monowai, 505–6, 506 n.62
- Monsters  
 “beavers,” 520, 531, 534  
 celestial, 233, 235, 255  
 earth  
 in Codex Borgia, 240, *pl.10*  
 on map of Zolipa, Veracruz, 243  
 on Tizoc stone, 235, 238  
 Underworld, 233
- Montagnais Indians  
 and design biting, 142  
 map by, 136  
 and scapulimancy, 139, 141–42  
 and war preparations, 69  
 “Montagne de pierre brillanté,” 145, 179
- Montejo Xiu, Don Francisco de, 209–10
- Monterrey, Mexico, 129
- Montesclaros, marqués de, 245
- Montezuma II. *See* Motecuhzoma Xocoyotzin
- Months, 240, 282
- Montreal, 52, 68–69, 94

- Monuments, 229, 299  
Moochinnick, 112  
Moodie, D. Wayne, 156–57  
Moolench, 377, 379, 379 n.87  
Moon  
  on African map, 43  
  in Andean cosmography, 272, 297  
  in Australian Aboriginal mapping, 369  
  in Eurasian Arctic and Subarctic cosmography, 334, 337  
  on native North American pictorial map, 117  
  in native North American rock art, 63, 64–65  
  in Navajo Male Shootingway, *pl.5*  
  in Navajo sandpainting, 110  
  South American and Caribbean ideas about, 304  
  in Tahitian native navigation, 446  
Mooney, James, 174  
Moore, H. F., 492  
Moore, Omar Khayyam, 142  
Moose, 141  
Moose Tail, 82  
Moquegua, Peru, 282  
Morap, 435  
Morgan, J., 409  
Morley, Sylvanus Griswold, 237 n.148  
Morphy, Howard  
  *Ancestral Connections*, 371  
  on Australian Aboriginal clan designs, 376  
  on Australian Aboriginal conceptions of time and space, 371  
  on indeterminacy of Australian Aboriginal paintings, 373  
  on meanings of Yolngu paintings, 364  
  on “primitive” art, 2 n.4  
  on toas, 384, 385  
“Morte or River Longue.” *See* Minnesota River  
Moseley, Michael E., 284 n.121  
Mosna River, 271  
Mosques, 28 n.21  
Motecuhzoma Xocoyotzin (Montezuma II), 222, 228, 228 n.121, 253  
Mother Earth, 109, 111  
Motifs, *pl.13*. *See also* Designs; Patterns  
  Andean  
  circle and dot, 277  
  organization of, 262  
  on Q’ero *pallay*, 266, 267, 268  
  on Quinoa pottery, 264–65  
  severed head, 273, 274  
  for sun, 266–67, 268  
  South American and Caribbean, 303–4  
Motutapu Island, 525, 526, 534–35  
Motutawa Island, 512  
Mougoulacha Indians, 103, 105, 105 n.175  
Mounds, 51, 94–95, 280  
Mountain of Creation, 112  
Mountain-Ok peoples, 427  
Mountains  
  on African maps, 36, 42, 43  
  on Andean maps  
  by Guamán Poma, 295  
  Moche landscape vessel, 279  
  on Moche pottery, 278, 279  
  on Nasca pottery, 278  
  Q’ero *pallay*, 266, 267  
  rock art, 271  
  by Santa Cruz Pachacuti, 297  
  in Andean timekeeping, 267 n.37  
  as boundaries, 262, 263  
  *ceque* system and, 286, 286 n.133  
  in Eurasian Arctic and Subarctic cosmography, 339  
  on Eurasian Arctic and Subarctic maps, 339, 340  
  von Haast’s map, 523  
  as *huacas*, 265  
  in Iatmul *mai* ritual, 439, *pl.23*  
  importance to Caribbean natives, 324  
  in Inka mapping rite, 287, 288  
  in Kaata body-landscape metaphors, 268  
  on Māori maps, 531 n.125  
  of Browning Pass, 523–24  
  by Hone Tūhawaiki, 514  
  by Ngāti Pikiao, 529  
  of Rakaia and Ashburton River headwaters, 535  
  by Rakiraki, 520, 534  
  by Te Huruwuru, 516, 534  
  Māori toponyms for, 493  
  on Mesoamerican maps  
  Codex Xolotl, 206, *pl.9*  
  by Cortés, 187  
  landscape painting, 256  
  on map of Tabasco compared with Temple of the Jaguars, 184 n.5  
  Olmec cosmogram, 234  
  on native North American maps  
  by Ac ko mok ki, 132  
  by Bering Strait Eskimos, 159  
  birchbark, 80  
  by Corn Tassel, 106  
  by Kohklux, 115, 117  
  by Lamhatty, 96  
  La Vérendrye’s map, 145–46  
  made for Lewis and Clark, 114  
  by Meatonabee and Idotlyazee, 146  
  Navajo sandpainting, 110  
  Ojibwa pictographs for, 82  
  by Paiutes, 113  
  Velasco map, 70 n.76  
  wampum maps, 89  
  in native North American rock art  
  Map Rock petroglyph, 65  
  Mohave Rock petroglyph, 62  
  pictograph at Ranch El Tajo, 61  
  Writing Rock, 63 n.46  
  on Smith’s 1612 map of Virginia, 71  
  on South American and Caribbean landform model, 320  
  in Yupno worldview, 436, 437  
Mount Aqhamani, 270  
Mount Arrowsmith, 524  
Mountford, Charles Percy  
  Australian Aboriginal maps collected by, 387, 388, 389, 393, 416  
  *Nomads of the Australian Desert*, 391–92  
  and *Orion and the Pleiades*, 369 n.61  
  Mountford-Sheard Collection, State Library of South Australia, 391–92, 401  
Mount Harman. *See* Kaniere  
Mount Illimani, 280 n.104  
Mount Kaata, 270  
Mount Kaniere. *See* Kaniere  
Mount Ngauruhoe, 503  
Mount Ruapehu, 503  
Mount Taylor, 110  
Mount Tongariro, 503  
Mowaljarlai, David, 361 n.38, 413–14, 415  
Mozeemlek Indians, 126–27 n.241  
Mubi River, 441–42  
Mubi Valley, 441–42  
Muckatamishaquet, Chief, 79  
Muckaty cattle station, Australia, 374  
Mud Lake, 83  
Mud maps, Australian Aboriginal, 400, 405–8, 409  
Muina, 285  
*Mulalambo* line, 30, 31  
Multibranch networks, 177, 178  
Muluc (year bearer), 203  
Mummies, 265, 277, 278  
Mundy, Barbara, 4  
Mungerauy (Munggurawuy), 398 n.34, 412, *pl.22*  
Munn, Nancy D., 359  
  Australian Aboriginal maps collected by, 401  
  “The Transformation of Subjects into Objects,” 365  
  on Warlpiri representations of trees, 412  
  on Warlpiri “sand stories,” 408  
Muñoz Camargo, Diego, 190  
Munsee Indians, 68  
Munyuku clan, 376  
Murals, Mesoamerican, 197. *See also* Walls, Mesoamerican maps on  
  at Bonampak, 237–38, 254–55  
  and cartography, 184  
  landscape paintings, 256  
Muramuras, 383, 384  
Muranji rock hole area, 380, 381  
Murdock, George Peter, 9  
Murganella floodplain, 397  
Murik people, 440 n.48  
Muri-whenua. *See* Rēinga  
Murra, John V., 259 n.12  
Murray, John, 34  
Murrinh-patha countryside, Australia, 403–5, 407  
Musée de l’Homme, Paris, 491  
Museum für Völkerkunde, Basel, 489  
Museum für Völkerkunde, Berlin, 170 n.336, 489  
Museum für Völkerkunde, Burgdorf, Switzerland, 490  
Museum für Völkerkunde, Freiburg, 489

- Museum für Völkerkunde, Hamburg, 490–91, 492
- Museum für Völkerkunde, Vienna, 492
- Museum of Anthropology, San Francisco, 118, 172
- Museum of Anthropology and Ethnography of Peter the Great, St. Petersburg, 341
- Museum of Victoria, Melbourne, 359
- Music, 303. *See also* Song
- Musical instruments, 32
- Muskingum River, 88
- Muskogean Indians, 99 n.165, 105 n.175
- Musk oxen, 159–60 n.320  
map of journey to hunt, 161–62, 164–65, 179, 180
- Muskrats, 139
- Mutch, James, 160 n.321
- Mwila drainage divide, 31
- Myers, Fred, 383
- My Eskimo Friends* (Robert Joseph Flaherty), 165 n.325
- Mysticism, 331
- Myths  
Andean, 265–66, 288, 295 n.180  
in Arctic and Subarctic Eurasia, 329  
Australian Aborigines and, 357, 360, 377–79, 380, 389, 539  
and Māori mapping, 518, 531  
as Melanesian maps, 426–28  
origin  
Desana, 305–6  
Inka, 265–66, 280, 280 n.103, 286 n.133, 287  
on South American and Caribbean map of routes between divinity and humanity, 311  
Tukano, 309, 310  
South American and Caribbean, 305
- Na alanui o na hoku hookele (the highways of the Navigation stars), 486
- Nāāng* (heaven or sky), 463
- Nabarima (Father of the Waves), 312, 313
- Nabokov, Peter, 53, 56 n.29
- Na-Dene Indians, 52, 171
- Nadir, 53, 310
- Na Hiku (Dipper), 486
- Na hoku-ai-aina (the stars which rule the land), 486
- Na hoku o ka lewa (foreign, strange, or outside stars), 486
- Na hokupaa o ka aina (fixed stars), 486
- Nahuas  
and Don Miguel Damian's property map, 226  
extant terrestrial map, 197, 197 n.43  
and Historia tolteca-chichimeca, 248–49  
and migration histories, 218 n.97
- Nahuatl, 183, 185, 187, 204  
architectural pictographs, 201  
dictionaries, 187  
and hieroglyphs, 190–91, 199  
hill pictograph, 199–200, 200 n.53
- maps in, 248–49, 250–51, 252–53, 254–55  
in Codex Florentine, 228  
in Codex Ríos, 236  
Plano en papel de maguey, 224  
in Primeros memoriales, 239  
and measurement, 203  
in Petlacala, 246  
speakers of  
and cloth maps, 195  
and itinerary histories, 218–19, 222  
on map of Cuauhtinchan, 205  
and map of Don Miguel Damian's property, 226  
in Xicalango, 228 n.123  
and Zacatepec, 209
- Nairn, Charles James, 521 n. 101
- Naisoot River, 79
- Na Kao (Orion), 486
- Nakota Sioux Indians, 58
- Na Lalani o Pilulua, 486
- Names, personal  
and hieroglyphs, 199  
on Humboldt Fragment 2, 222  
in Iatmul genealogy, 428  
on Mesoamerican maps, 187, 198, 224, 225
- Names, place. *See* Place-names
- Namibia, rock art from, 26 n.11
- Namorik Island, 480, 482, 484
- Nampitjinpa, Sonder, *pl.19*
- Namponan, Angus, 377–79, 379 n.88
- Namu Island, 482, 484
- Namut (bear) (constellation), 112
- Nancie, 112
- Nandu prints, 309
- Nanfan, John, 93–94
- Nanook of the North*, 165 n.325
- Na Nupepa Ku'oko'a* (newspaper), 487 n.110
- Nanyin, 398 n.34
- Naparima Hill, Trinidad, 313
- Narragansett Indians, 73
- Narritjin Maymurru. *See* Maymurru, Narritjin
- Narvaez expedition, 172
- Nascas. *See also* Nazca lines  
ceramics, 275–78  
chieftain vessels, 297  
defined, 275 n.75  
importance of metaphor to, 268  
and severed heads, 277–78, 278 n.94  
and trophy headtaking, 273 n.71
- Nash, David, 374
- Naskapi Indians, 136, 138, 142
- Nassúr, Mohammed ben, 38
- Nastapoka Islands, 165
- Natal, homestead plans from, 17
- Natal Drakensberg range, 15
- Natanis, 84
- Natchez Indians, 101, 103, 177, 178
- National Anthropological Archives, Natural History Museum, Smithsonian Institution, 170 n.336, 173
- National Archives of New Zealand  
Wellington, 531–32, 534–35, 536
- “Nations Amies et Ennemies des Tchikachas,” 103, 104
- Native Department, 525, 531
- Natouaque Indians, 103
- Nature, 259
- Nature Conservancy, 540
- Nautical cartography, Oceanic, 443–92
- Nautical charts. *See also* Stick charts  
early European charts of Caroline Islands, 451–53, 454, 455  
English, 90, 90 n.131  
Kotzebue's chart of Marshall Islands, 453–54, 456–57  
in modern Carolinian navigation, 468–69  
by Pokomoke Indians, 68, 69, 69 n.72  
and stick charts, 485  
Tupaia's chart of Polynesia, 446–51
- Nautical miles, 469
- Navajo Indians, 171  
and celestial rock art, 65–66, 67  
cosmography, 53  
hogans, 53, 181  
Male Shootingway, 110, *pl.5*  
sandpainting, 106, 109–11, 175  
and spatial representations, 176
- Navamuel, Ercilia, 271
- Navel of the world, 317
- Navigation, Oceanic, 443–92  
Bugi, 488  
Carolinian, 458, 461–75  
and gender, 455  
Hawaiian, 486–87  
Indonesian, 488, 488 n.113  
instruments, 485–87  
Marshallese, 475–85  
Polynesian, 458–59, 493 n.2  
Tahitian, 458  
Tregganu, 488 n.116
- “Navigation Gourd Notes” (Theodore Kelsey), 486
- Nāwi* motif (hole for planting), 269
- Nay hik til lok, 165, 166, 166 n.326
- Nazca lines, 6, 257 n.6, 275–78, 287, 290 n.159, 297. *See also* Nascas
- Nazca River, 275
- Near Oceania, 418, 419
- Nebenzahl, Kenneth, Jr., Lectures, 56, 56 n.29, 57
- Nebulae, 63
- Neches River, 95
- Necklaces, 431
- Necrópolis of Cerro Colorado, 273–74
- Neich, Roger, 531
- Nelson, 503
- Nelson, E. W., 166–67 n.328
- Nelson Examiner and New Zealand Chronicle*, 503
- Nelson Province, 505 n.52
- Nelson River, 146, 147
- Nelu, Chief, 491
- Nentsy, 330 n.8
- Neo-Eskimos, 171
- Neolin (the Enlightened One), 54, 91, 93
- Nenhrte 493

- Nerchinsk Evenks, 333, 335  
 Netherlands, 324  
 Netsilik, 159, *pl.8*  
 Networks, 177, 178  
 Nevada, petroglyphs from, 61, 62  
 Nevel'skoy, G. I., 339  
 Nevermann, Hans, 455, 476, 482, 485  
 Newberry Library, Chicago, 56, 56 nn.26, 29, 57  
 Newcomb, Franc J., 109, 110, *pl.5*  
*A New Discovery of a Vast Country in America* (Louis Hennepin), 99 n.163  
 Newe (Southern Cross), 486  
 New Edinburgh. *See* Dunedin  
 New England, 67  
 Newfoundland, 73 n.79  
 Newfoundland Museum, St. John's, 73 n.79  
 New France, 67  
 New Galicia, 108 n.184  
 New Guinea, 541. *See also* Papua New Guinea  
     on map of Oceania, 418  
     settlement, 419, 420, 423  
 New Hampshire, 91 n.133  
 New Ireland, 438–39 n.47  
 "A New Map of Part of North America" (Arthur Dobbs), 144–45  
 New Mexico  
     Largo Canyon rock art, 65–66, 67  
     Miguel's map of, 125–26, 127, 177, 179  
 New York, 4 n.9, 434  
     on Micmac gestural map, 52, 68, 69  
 New Zealand (Aotearoa). *See also* Māoris; North Island; South Island  
     climate, 530  
     maps of  
         made for Cook, 530, 531  
         Māori toponyms on, 499–500  
         North Island (*see* North Island, maps of)  
         relating to Māori land claims, 525–30  
         repositories, 531–32  
         South Island (*see* South Island, maps of)  
         by Te Ware Korari, 537–38  
         by Tuki, 493, 494–95, 506, 507, 508–9, 509 n.70, 531, 533  
     as part of Polynesia, 445  
     reference maps, 502, 509  
     settlement, 420, 493  
     Tupaia pilots *Endeavour* to, 449  
 New Zealand Company, 505 n.56, 509, 513, 520  
*New Zealand Journal*, 513  
 Ngadadjara Tribe, 416  
*Ngahere* (forest), 513  
 Ngai Tahu *iwi*, 498, 504, 513, 514, 516, 518 n.92, 521  
 Ngakumal (Dreaming sites), 404  
 Ngātai, 525, 526, 534  
 Ngāti Awa *iwi*, 525, 530  
 Ngāti Kahunugunu *iwi*, 510  
 Ngāti Mutunga *hapū*, 503 n.45  
 Ngāti Pīkiao *hapū*, 528–30  
     graphy, 339  
 far western, 106, 108–15, 116–17, 118  
     early mapping encounters, 106, 108  
     ephemeral maps, 113–14  
     Lewis and Clark expedition, 114–15  
     modeled maps, 112–13  
     other maps on paper, 115, 116–17, 118  
     ritual and cosmographic maps, 108–12  
 Great Plains and Canadian prairies, 115, 116–35, 136, 137  
     celestial maps, 123–25, *pl.7*  
     nineteenth-century maps, 128–35, 136, 137  
     pictorial maps, 117–23, 124  
     seventeenth-century maps, 125–28  
 historiography, 55–56  
 maps of  
     access and conservation, 54–55  
     Acktis Island, 112, 113, 180  
     by Aikon Aushabuc, 52, 68–69  
     Alaska, 143, 157, 158  
     Arctic Bay (Cape Dorset), 169–70  
     Belcher Islands, 155, 164, 165  
     and Beothuck Indians, 73 n.79  
     Black Hills, 55, 120–21, 123, 176, 179  
     British Columbia, 115, 116–17  
     Bull Creek valley, 68  
     canoe route from Lake Athabasca to Thelon River, 149, 152–53  
     Cape Ann, 68  
     Cape Fullerton, 160–61, 162–65  
     Catawba map, 99, 101, *pl.4*  
     celestial, 64–66, 67  
     Charlton Island, 151–52, 154, 156, 173, 179  
     Chesapeake Bay, 67, 67 n.60, 68, 69–70, 72  
     Chickasaw map, 99–101, 115 n.217, 173, 176  
     coastline, 62 n.46  
     Colorado River, 61–62, 63, 108, 172, 177  
     Coteau des Prairies, 126–28  
     country from John Scotts Lake to Wikusko Lake, 154  
     Cumberland Sound, 170 n.336  
     decorative ceremonial, 171  
     forest-tundra boundaries, 149  
     Greenland, 167–68, 169  
     Hudson Bay, 165–66  
     by Huron Indians, 67 n.60  
     Indiana and Illinois, 90–91, 92, 93  
     indigenous roles, 179–82  
     information content, 178–79  
     James River, 68, 68 n.64  
     Keewatin District, 161–62, 164–65, 179, 180  
     Kraus Virginia map, 69–70, 72  
     Lachine Rapids, 67–68, 172  
     Lake Nipigon, 149, 151, 154, 177  
     Lake Ontario, 142 n.280  
     by Lamhatty, 96–99  
     land between Repulse Bay and Prince Regent Inlet, 159, *pl.8*  
     Maine, 68, 85, 86, 90, 91, 180 n.364  
 Ngāti Porou *iwi*, 497, 513  
 Ngāti Tama, 518 n.92  
 Ngāti Tūwharetoa, 501, 503  
 Ngaymil clan, 403, 404  
 Nguni societies, 21, 23  
 Niagara Falls, 77 n.81  
 Nicholas, John Liddiard, 501  
 Nicholson, Francis, 99–101, 99 n.163, 173, *pl.4*  
 Nicholson River land claim, 405, 408, 413  
 Nicollet, Joseph N., 86  
 Niger, grazing areas in, 38–40, 41  
 Niger River, 28, 34–35, 41  
 Night  
     in Mesoamerican cosmography, 237  
     in Navajo sandpainting, 110  
 Night Chant (Navajo), 65  
 Nile River, 35  
     9 Crocodile, 215, 216  
     9 Tochtli, 221  
 Niobrara confluence, 134  
*Nit in kot* (a hole) swells, 478, 478 n.89, 479, 480  
 Niutopotapu. *See* Kepple Island  
 Nivkhi peoples, 339, 339 n.34, 344–45, 347  
 Njien, 368–69, 410, 411  
 Nji Mama, 42–43  
 Njoya, King, 41–45, 48, *pl.3*  
 Njoya, Ibrahim, 43, 43 n.82  
 Nkongolo, 33  
 Nodes, 62, 101  
 Nodules, 168  
*Nomads of the Australian Desert* (Charles Percy Mountford), 391–92  
*Nombres geográficos de México* (Antonio Peñafiel), 190–91  
 Nomsa, 435  
 Non-Chi-Ning-Ga, 134–35, 136, 137, 177–78  
 Nonoti Raureka. *See* Browning Pass  
 Nōókitikiit, 470  
 Nōónapanap, 470  
 Nootka Indians, 112, 113, 180  
 Norfolk Island, 508, 508 n.66  
 North  
     on Bernus's maps, 40  
     in Mesoamerican cosmography, 203, 230, 231, 233  
     on native North American birchbark maps, 80  
     in Navajo sandpainting, 110  
 North America, 51–182  
     Arctic, 154–70  
         ephemeral maps, 159  
         Euro-American perceptions, 157–59  
         late twentieth-century Inuit maps, 169–70  
         maps on ivory and wood, 166–68, 169  
         maps on paper, 159–66  
     cartographic affinities between regions, 170–72  
     and Chinese book of travels, 62–63 n.46  
     cosmography, 53–54, 64–66, 67  
     in Eurasian Arctic and Subarctic cosmo-

- North America, maps of (*cont.*)  
 Manhattan Island, 68  
 Manitoba, 144, 145, 145–46, 147, 148, 179  
 by Martínez, 126, 126 n.240  
 Melville Peninsula, 157  
 Melville Peninsula and Baffin Island, 159, 160, 164–65  
 message maps, 342  
 Mississauga boundary map, 77, 79, 179  
 Mississippi and Missouri Rivers, 134–35, 136, 137  
 Mississippi River, 129, 130  
 Missouri and South Saskatchewan Rivers, 129–32  
 Moisie River, 136, 138, 180  
 New Hampshire, 91 n.133  
 New Mexico, 125–26, 127, 177, 179  
 northeastern California, 115, 118  
 northern and central Plains, 132–33, 134, 135  
 northwestern Canada, 143–45, 146, 146 n.291, 149, 150–51, 152, 165  
 by Oneida Indians, 68  
 Pequot country, 73, 179  
 by the Pheasant, 68  
 physical attributes (media), 174–76  
 Pokanoket land to be sold, 73–74, 179  
 Qu'Appelle River, 129  
 Rocky Mountains, 132, 133  
 route from Richmond, Virginia, to the Appalachians, 68  
 by Skiko, 67 n.60  
 St. Lawrence, Connecticut, Hudson, and Susquehanna Rivers, 77, 77 n.81, 78–79, 178  
 St. Lawrence–Great Lakes, 82, 83  
 St. Lawrence River, 67–68, 71–72, 172  
 de Soto expedition map, 95, 96, 97–98  
 Susquehanna River, 74–77, 138, 177, 179  
 territory west of Lake Superior, 145 n.287  
 Velasco map, 70–71, 71–72  
 Victoria Island, 157  
 Virginia, 69–70, 70 n.76, 71, 72  
 western Canada, 136–38, 140–41, 149  
 Yukon Territory, 115, 116–17, 143  
 native map usage compared with European map usage, 182  
 northeastern, 66–94  
 birchbark maps, 79–86  
 ephemeral maps, 67–71, 72  
 made for Europeans, 71–79, 80, 81  
 maps on blazed trees, 87–88  
 maps on skin, 90–94  
 message maps, 84–86  
 wampum maps, 88–90  
 precontact, contact, and postcontact, 51–52  
 reference map, 58–60  
 rock art, 57, 61–63, 64, 64–66, 65, 67  
 southeastern, 94–106, 107  
 boundaries and mapping, 105–6, 107  
 early mapping encounters, 95–99  
 official maps made for colonial authorities, 99–103, 104, 105  
 other mapping encounters, 103, 105  
 standard regional divisions, 99 n.165  
 Subarctic, 135–54, 155, 156  
 on bark and skin, 135–39, 140, 141  
 design biting, 142–43  
 European-Indian interaction, 143–54, 155, 156  
 scapulimancy, 139, 141–42  
 words for “map,” 52–53  
 North Auckland Peninsula, 508  
 North Cape. *See* Rēinga  
 North Cheyenne River, 120  
 North Dakota  
 Sitting Rabbit's map of Missouri River, 121, 123, 124, 133, 173, 179  
 Writing Rock, 63 n.46  
 Northern Cape, engravings from, 21  
 Northern Pipeline Agency, 138  
 Northern Sotho societies, 21–22  
 North Island (Te Ika a Māui). *See also* New Zealand  
 exploration, 493  
 Māori population, 493  
 on map drawn for Cook, 500  
 maps of, 501, 503, 509–13, 534, 535, 536  
 obtained by von Hochstetter, 510, 512  
 related to Te Kooti, 512–13  
 in Tiffen's field book, 509–10, 511  
 on *waka* paddle, 531 n.126  
 rainfall, 530  
 surveying, 496  
 and toponyms, 499  
 on Tuki's map, 508, 509  
 vegetation, 530  
 North Star. *See* Polaris  
 Northwest Coast culture, 115  
 Northwest Territories, 146, 149, 152–53  
 Norton, Moses  
 map of western Canada made for, 136–38, 140–41, 149  
 and Meatonabee and Idotiyazee's map, 146, 149, 151  
 Norton Sound, 167  
 Norwood, Henry, 68, 69, 69 n.72  
 Noun (Moinun) River, 43 n.82  
 Nowa (sacred being), 358  
 Nugumiuts, 170 n.336  
 Numbers, symbols for, 221  
 Num Lake, 343, 346  
 Núñez Cabeza de Vaca, Alvar, 172  
 Núñez Jiménez, Antonio, 271  
 Núr, Hádji Moammed, 35  
 Nuremberg, map printed in, 194, 195  
*Nurtunja* poles, 359  
*Nuuu*, 200 n.53  
 Nuuanu, 486  
 Nyapililngu, 374  
 Nyapukxaua (mountain where people were created), 112  
 Nyffee, 35  
 Nyí, rock of, 308, 309, 314  
 Oanaka. *See* Lake Wanaka  
 Oaxaca  
 cloth maps made near, 195  
 establishing of boundaries, 220  
 on Lienzo of Tlapiltepec, 219  
*lienzos* from, 191  
 maps from, 196  
 Oaxtepec, 200  
 Obelisk, Tello, 272–73  
 Oblique perspective, 120, 244  
*Oboba* (upper and frontal areas), 434  
 Observatories, astronomical, 237  
 Obsidian, 171, 493, 501 n.41  
 Oceania, 443–92. *See also* Melanesia; Micronesia; Polynesia; and *specific islands*  
 Caroline Island navigation and cartography, 461–75  
 colonization, continuity, and connections, 487–89  
 charts drawn by explorers and missionaries, 446–54, 455, 456–57  
 Caroline Islands, 451–53, 454, 455  
 Kotzebue's chart, 453–54, 456–57  
 Tupaia's chart, 446–51  
 divisions of, 419  
 European penetration of, 444–46  
 maps of, 418, 420  
 Marshall Island piloting, 475–85  
 mental cartography, 443–44  
 navigational accuracy, 460–61  
 settlement, 419–22, 487  
 stick charts in museums, 489–92  
 use of navigational instruments, 485–87  
*An Ocean in Mind* (Will Kyselka), 468  
 Oceans. *See also* Seas  
 in Algonquian cosmography, 52, 69  
 on map of “Yurok idea of the world,” 181  
 in Navajo sandpainting, 109  
 Ojibwa pictographs for, 82  
 on Smith's 1612 map of Virginia, 69, 71  
 in Warao cosmology, 313, 315  
 Others  
 Australian Aboriginal maps in, 404, *pl.15*, *pl.17*, *pl.18*  
 Australian Aboriginal paintings in, 357, 366, 370, 372, 378, 385  
 native North American maps in, 84  
 South American and Caribbean petroglyphs in, 308  
 toas in, *pl.20*  
 Oconee, 96  
 Octagons, 95  
 Octopuses, 278  
 Odena Güema, Lina, 191  
 Oeno, 461  
 Offerings, 276  
 Oglala Sioux Indians. *See also* Sioux Indians  
 Bad Heart Bull's maps, 119–21, 122, 123, 176, 179  
 cosmography, 53, 55, 538  
 tipis, 181  
 and use of circle, 539



- Ogooué River, 36  
 Ogoula Tchetoka, 101  
 Ohakea (Patterson Inlet), 513 n.83  
 O'Hanlon, Michael, 434  
 Ohau (Ōhau; Ōhou), *pl.24*  
 Ohio River, 70, 72  
 Ōhou. *See* Ohau  
 Ojibwa Indians  
   birchbark message map, 85  
   and boundary maps, 79  
   and design biting, 142  
   lack of access to migration charts, 55  
   mapmaking techniques, 83–84  
   map repositories, 82  
   and pictography, 86  
   and shamanistic rituals, 6  
   and types of rapids, 137–38 n.265  
   Windigo's map, 149, 151, 154, 155, 177  
 Okak. *See* Okkak  
 Okar (root), 477–78, 479–80, 482  
 Okfuskees Abeka Indians, 103  
 Okhotsk, Sea of, 339 n.36  
 Okkak (Okak), 159  
 Old Swan. *See* Ac ko mok ki  
 Old Woman Mountains, 63  
 Olimarao Island, 467, 468, 470  
 Ollone, Henri d', 36  
 Olmecs, 183–84, 189, 234, 234 n.140  
*The Olmec World*, 234 n.140  
 Omaguas, 313, 324  
 'Omar ibn Nedjât, 41  
 Ometeotl, 236  
 Omitl (unit of measurement), 203  
 Omo site, 282  
 Oñate, Juan de, 125, 126  
 1 Acatl, 221  
 1 Crocodile, 232  
 1 Flower, 215  
 1 Ocelot, 232  
 Oneida Indians, 68, 89, 90  
 Ong, Walter J., 425, 538–39  
 Onondaga, 81, 89  
 Onondaga Indians, 89, 90  
*Opatoa (Apato'a)*, 449–50, 450 n.23  
*Opatoarow (Apato'erau)*, 449–50, 450 n.23  
 Oral maps, 41  
 Orchards, 253  
 Oreti (Koreti)/New River estuary, 516, 517  
 Oreti River, 505  
*Órgano* (red and white rectangles), 267, 269  
 Orientation  
   of African maps  
     of Bamum, 43, 43 n.82, 44  
     by Bello, 34  
     by Bernus, 39–40  
     Dogon cosmographic map, 26  
     European influence on, 47–48  
     by Ras Makonnen, 45, 47  
     route map between Njoya's farm and Fumban, 42  
     by Sabatele, 37  
     southern African agriculturalist engravings, 19–20  
   of Yupno maps, 436, 437  
 "Orientations from Their Side" (Peter Nabokov), 56 n.29  
 Origin, god of, 310, 312  
 Origin myths  
   Desana, 305–6  
   on South American and Caribbean map, 311  
   Tukano, 309, 310  
 Orinoco River, 317  
   destruction of native society in basin of, 301  
   Raleigh's journey along, 319, 322 n.51  
   on Raleigh's map of Guiana, 325  
   serpentine imagery for, 324  
   on South American and Caribbean maps, 321  
 Warao people from delta of, 308, 313, 315  
 Orion (constellation), 237  
   on Aitiij *duho*, 318  
   in Australian Aboriginal mapping, 369, 370  
   and Carolinian and Arab star compasses, 488  
   and Carolinian navigation, 465, 474  
   on Diegueño sandpainting, 112  
   and *etak*, 471  
   in Eurasian Arctic and Subarctic cosmography, 339  
   on Hawaiian navigation gourd, 486  
   longhouse identified as, 309  
   in Navajo rock art, 65, 67  
   and navigation, 457 n.42  
   in Primeros memoriales, 239  
   South American and Caribbean myths about, 305  
   in Tabwa scarification, 31  
*Orion and the Pleiades* (Minimini Mamarika), 369, 369 n.61, 370  
 Orlove, Benjamin, 263  
 Orochi people, 336–37, 338, 339  
 Orozco y Berra, Manuel, 190  
 Ortloff, Charles R., 283–84, 284 n.121  
 Orunmila (Ifa), 27–28 n.21  
 Oshcabawis, 80  
 Ostrovskikh, P. Ye., 344, 346  
 Oswego River, 77  
 Otago, 518 n.92  
 Otago Association, 505 n.56  
 Otago Harbour, *pl.24*  
 Otago Peninsula, 514  
 Otahuhu Point. *See* Tāhuhu  
 Otakou, 514  
 Otata, 108–9  
 Otematakou (Otematata) River, 521  
 Oto Indians, 132–33, 134, 135, 180  
 Otomi, maps in, 248–49  
 Otsego Lake, 76  
 Ottawa River, 77 n.81  
 Ottawa River–Lake Huron watershed, 84–85, 343  
 Otters, 151, 342  
 Ō Tūroto. *See* Lake Heron  
 Oudney, Walter, 35

- Ouzovtovovi, 117  
 Ouzzeine Valley, 41  
 Ovals  
   on Andrew's map, 149  
   on Australian Aboriginal paintings, 363 n.41  
   in Eurasian Arctic and Subarctic cosmography, 337  
   in Yupno worldview, 436, 437  
   in Zimbabwean rock art, 16–17  
 Ovoappa, 117  
 Owenga, 511  
 Oxley, John, 355  
 Oztoc (cave), 189  
 Oztoticpac lands map, 196, 252–53
- Pā* (forts), 493, 499, 501, 508 n.69, 525, 526, 531 n.125, 535  
*Pā* (unit of measurement), 496  
 Paasch Eylandt. *See* Easter Island  
 Pacal, Lord, 234–35, 237, 254–55  
 Pacariqtambo, 294–95, 295 n.180  
   *chbiutas* mapping rites in, 270, 276, 297, 299  
 Pacasmayo Valley, 293–94  
 Pachacuti Inka Yupanque, 285, 286  
*Pacha mama* (earth mother), 297  
 Pachayachachic, 287  
 Pacific Arts Festival, 475 n.81  
 Pacific Basin, traditional cartography, 417–536  
   introduction, 419–22  
   Māori, 493–536  
   Oceanic nautical and traditional navigation, 443–92  
   in Papua New Guinea, 423–42  
 Pacific Ocean, 4, 280  
   and Austronesian expansion, 421  
   in “Bericht” of Jephtha, 323  
   in false geography of the Northwest, 71 n.77  
   on Smith's 1612 map of Virginia, 69, 71  
 Paoecoe Tlacaya, 236  
 Padama tributary, 321  
 Paddles  
   Asian maps on, 171  
   as Australian Aboriginal painting medium, 357  
   Eurasian Arctic and Subarctic maps on, 345, 347, 348  
   Māori map on, 531 n.126  
   on map of Yalangbara, 413  
*Pafū* (star paths), 465  
 Paheas, 450  
*Pahi*, 450, 451 n.27  
 Paint  
   Eurasian Arctic and Subarctic maps in, 345  
   in Iatmul body painting, 438  
   native North American maps in, 85  
   in sacred bundles, 125  
 Painter-scribes, Mesoamerican, 197–98  
 Painting, 3, 5. *See also* Rock art;  
   Sandpainting  
   Australian Aboriginal, 364 n.43, 366–83, 539  
   conventions, 367–68  
   finger, 391  
   interpretations of, 373  
   media used, 354–55, 359, 366–67  
   from northeast Arnhem Land, 375–76  
   rock art, 354, 356–57, 374–75  
   from western Cape York Peninsula, 377–79  
   from Western Desert, 379–84, 388–89  
 Khoisan, 26 n.11  
 Mesoamerican landscape, 184, 184 n.5, 197, 256  
 Plains Indian, 133  
 and South American and Caribbean cartography, 301  
   in southern African rock art, 14  
 Paiute Indians, 106 n.183, 112–14  
 Pajpara, *pl.*16  
 Pakana, Captain of, 101, 102, 103, 177, 178  
 Pākehās (Europeans), 501, 521 n. 101, 525, 531  
*Pākihi* (open grassland), 518, 531 n.125  
 Palaces  
   on Mesoamerican maps, 225, 225 n.115, 227  
   tapestry with map of, 45, 46  
 Palau. *See* Belau  
 Palenque, 234–35, 237, 254–55  
 Palingawi, 429  
 Palkarakara, 370  
*Pallays* (two-sided cloths), 266–68, 268, 269, 297  
 Palliser Bay, 509, 530  
 Palm fronds, 428, 429, 541  
 Palomans, 266  
 Palta, 293, 294  
 Pampa, 276  
 Pamuri-mahsē (the creator), 311, 312  
 Panaramitee style engravings, 374, 375  
 Pandak, Nym, 403–5, 407  
*Pankalangu Ceremonies at Yamuntunga*, *pl.*19  
 Panlog, 452  
 Panorama Guth, Alice Springs, 359  
 Panoramic views, 194  
*Papa* (potatoes), 293, 294  
 Papako, 518 n.92  
 Papi, 399  
 Papua New Guinea, 423–42. *See also* New Guinea  
   coverage of, 8 n.35  
   reference map, 424  
   Trobriand Islands, 6–7, 10  
 Paracas, textiles and artifacts, 273–74, 275, 297, 299  
*Parajes* (resource zones), 258, 265–68, 269, 299  
   Paracas and, 273, 274  
   Quinuas and, 264  
   on Sayhuite Stone, 288  
 Parallels, 101  
 Parallel structure of Andean landholdings, 262–65, 266, 297  
 Parchment, maps on, 138, 194  
*Parcialidades*, 261 n.19, 262, 264  
 Paria, Gulf of, 324  
 Parietal art. *See* Rock art  
 Parime (lake), 324–25  
 Paris Codex, 237 n.150, 240  
 Parishes, 101  
 Pariwhakaoho, 526  
 Pariwhakaoho River, 525  
 Park, Mungo, 35  
 Parmenter, Russ, 191  
 Parrot fish, 468  
 Parrots, 281  
 Parry, William Edward, 157, 159, 160  
 Pärssinen, Martti, 293, 294  
 Partridge, Thomas Mitchell, 513 n.80  
 Pasa, 428  
 Passamaquoddy Indians, 173  
 Passes, mountain, 523, 531 n.125, 535  
 Pastoralism  
   African, 14  
   Bennett Stela and, 281, 282  
*Patalapiri* (representational form), 320–21, 322  
 Patamona, 320, 321  
 Patea River, 496  
 Patea-Waipuku Block, 496  
 Paths. *See also* Trails  
   on Andean maps, 280, 288  
   on Chukchi wooden board map, 341  
   in circuit networks, 177  
   in Melanesian mythology, 426–27, 428  
   in Melanesian song maps, 434  
   on Mesoamerican maps, 203, 219  
   on native North American maps, 101, 103, 161  
   on Nivkhi ritual vessels, 344  
   in South African rock art, 538  
   in South American and Caribbean cosmology, 311  
 Patterns. *See also* Designs; Motifs  
   dot, 14  
   on shell cup, 103, 103 n.172, 105  
 Patterson Inlet. *See* Ohakea  
 Paul, Anne, 273  
 Pausi River, 263  
 Pawnee Indians  
   celestial map by, 54, 123–25, *pl.*7  
   contact with Europeans, 124 n.231  
   cosmography, 53, 54  
   and mirroring, 176  
 Pawprints, 344, 347  
 Pawtucket Indians, 68, 180 n.364  
*Payan* (honorary Inka), 286  
 Paytiti, 324  
 Peabody Essex Museum, Salem, Mass., 492  
 Peabody Museum of Archaeology and Ethnology, Harvard University, 490, 492  
 Pebbles. *See* Rocks  
 Peccaries, 237, 303, 313  
 Peck, Edmund J., 160 n.321  
 Pecos Valley, 126  
 Pegmatite, 154  
 Peirce, Charles S., 9  
 Pekarskiy, E. K., 339–40 n.36  
 Pelly Mountains, 157  
 Pemon, 305 n.8

- Peñafiel, Antonio, 190–91
- Pencil  
 Australian Aboriginal maps in, 399, 402, 411  
 Eurasian Arctic and Subarctic maps in, 339, 339 n.34, 346  
 Māori maps in, 505, 508, 510, 520, 521, 531, 533, 534, 535  
 native North American maps in, 73 n.79, 84, 85, 115, 118, 137, 148, 149, 151, 154, 161 n.322, 162, 164, 173, 176  
 South American and Caribbean maps in, 308 n.18
- Pencha Mangu, Te. *See* Te Pencha Mangu
- Peninsulas, 149
- Pennsylvania, Bull Creek valley, 68
- Penutian Indians, 52
- People. *See* Humans
- Pepet dz'ibil* (circular paintings or writings), 185, 210, 539
- Pequot Indians, 73, 179
- Pérabo, 36
- Percy, George, 69–70, 72
- Performance cartography, 4–5, 537, 540
- Performances, ceremonial, 365, 365 n.54, 410–11
- Performers, 275, 358–59
- Perkins, E. T., Jr., 62, 65
- Péron, François, 354
- Perpendicular views, 410
- Persians, 330
- Personal names. *See* Names, personal
- Personification of stars and constellations, 305, 305 n.8
- Perspectives. *See also* Views  
 bird's-eye, 264 n.27  
 in Carolinian navigation, 470  
 frontal, 228, 265  
 oblique, 120, 244  
 planimetric (*see* Planimetric perspective)  
 profile (*see* Profile)  
 radial, 229  
 used by European explorers, 363 n.42  
 vertical, 340 n.42
- Peru, rock art from, 271
- Peruvian National Forestry Center, 265
- Pesa Mbili, 37
- Peschel, Oscar, 55
- Petén, 237
- Peters, Anne, 277
- Peterson, Nicolas, 364
- Petlacala, Lienzo of, 246–47, *pl.12*
- Petrie, Tom, 355
- Petroglyphs. *See also* Rock art  
 Andean, 271  
 defined, 57 n.34  
 Eurasian Arctic and Subarctic, 343  
 Mesoamerican, 225 n.115  
 South American and Caribbean, 303, 308–9, 314, 315
- The Pheasant, 68
- Philip, King, 73–74
- Philip II (Spain), 212, 214, 244
- Philippines, 541  
 Austronesians and, 421
- Caroline Islanders in, 451–53, 489  
 Spain colonizes, 451  
 traditional navigation, 488
- Phonics, 199
- Phosphorescent light, 460
- Piaulug, Mau, 468, 474, 487
- Piankashaw Indians, 91, 92, 103
- Pibil, 208
- Pickersgill, Richard, 447, 448, 450
- Pictoglyphs, 57 n.34. *See also* Rock art
- Pictographs. *See also* Rock art; Signs; Symbols  
 defined, 57 n.34, 198 n.48  
 Eurasian Arctic and Subarctic  
 on blazed trees, 345  
 on bleached sealskin, 346, 348, 349  
 on wooden board maps, 342, 344  
 Mesoamerican, 198–200, 201  
 architectural, 198, 201  
 in Codex Nuttall, 215  
 geographic, 198, 200  
 and hieroglyphs, 199  
 for hills (*see* Hills)  
 on map of Cuauhtinchan, 205, 206  
 on Mixtec circular maps, 210  
 on Plano en papel de maguey, 224  
 native North American, 52–53  
 on Ac ko mok ki's map, 132  
 on bark maps, 85–86, 176  
 on birchbark message maps, 85–86  
 on Chickasaw map, 99, 101, 115 n.217, 173  
 and Chippewas' petition, 79, 79 n.91, 80, 81  
 on Gero-Schunu-Wy-Ha's map, 132, 133  
 hill-in-profile, 114, 114 n.214, 132, 146  
 in Howling Wolf's ledger art, 118  
 on Ki oo Cus's map, 130, 132  
 on Kiowa calendar, 173, 174  
 on Lewis and Clark's transcripts of Indian maps, 114, 114 n.214  
 on map of western Canada, 137–38  
 Neo-Eskimo tradition of, 171  
 Ojibwa, 82, 86  
 omitted from Wahpekute map of upper Mississippi Valley, 129  
 and quantitative information, 85–86, 86 n.113  
 on Sitting Rabbit's map, 124  
 on Teseuke's map, 162, 164  
 in Walam Olum, 82 n.99
- South American and Caribbean, 301, 308–9
- Pictorial images, 183, 193
- Pictorial maps, 115, 115 n.217, 117–23, 124
- Pictorial narratives, 262
- Picture writing, 183, 185, 191, 198
- Picture Writing from Ancient Southern Mexico* (Mary Elizabeth Smith), 191
- Piedra Cansada (Tired Stone), 288
- Pierre (guide), 136, 138
- Pierre, South Dakota, 132
- Piko o Wakea (equator), 486
- Pilgrimages, 276
- Pillars, 281 n.110
- Pillcomayo River, 297
- Piloting, 475–85
- Pima Indians, 108
- Pinax*, 1–2
- Pinching Stars, 67
- Pine Point, 83
- Pine Ridge escarpment, 119
- Pinisi*, 488
- Pintbarra* (patrilineal totems), 383
- Pinturas* (paintings or pictures), 185, 222, 241, 258 n.8
- Pinxten, Rik, 176
- Pipe clay, 404
- Pipes, 125
- Pipes, Tom, 156
- Piraparaná River, 306, 308, 314
- Pisac, Peru, 267–68, 269
- Pisco River, 274
- Pitcairn Island, 461
- Pitjandjara people, 416
- Pitt Island, 503
- Pitt Rivers Museum, School of Anthropology and Museum of Ethnography, Oxford, 346, 348, 348 n.68, 349, 491
- Pittsburgh, 88, 88
- Place-names  
 on African maps  
 of Bamum, 43, 43 n.82  
 by Bernus, 38–39  
 by Dupuis, 38, 39  
 on Njoya's map of Bamum, *pl.3*  
 by Ras Makonnen, 45  
 route map between Njoya's farm and Fumban, 42  
 of Tuareg grazing areas, 40
- Andean, 267–68, 267–68 n.41  
 animals and, 299  
*khipus* and, 291, 293, 294  
 on Moche landscape vessel, 279  
 on Sayhuite Stone, 288  
 using puma anatomy, 285
- and Arawakan Wakuénoi cosmology, 317
- on Australian Aboriginal maps, 371, 389, 394, 397, 402, 406, 407, 408
- Caribbean, 324
- Eurasian Arctic and Subarctic, 330, 340  
 on European maps, 41
- Māori, 493, 493 n.1, 498–500, 530, 537–38, 539  
 in Waitaki River area, 521, 521 n. 102, 522, 523
- on Māori maps, 531, 531 n.125  
 of Browning Pass, 525  
 von Haast's map, 523, 524  
 of Lakes Wairarapa and Onoke, 510, 534  
 of Motutapu and Rangitoto Islands, 526  
 by Ngātai, 525, 534  
 by Ngāti Pikiao, 529, 530  
 of Rakaia and Ashburton River headwaters, 535  
 of Rakaia River headwaters, 535

- Place-names, on Māori maps (*cont.*)  
 of Rotorua lakes, 536  
 by Te Arawa Māori, 512  
 by Te Huruheru, 516, 518  
 by Te Ware Korari, 521, 523, 537–38  
 by Tuki, 533  
 in Melanesian mythology, 426  
 on Mesoamerican maps, 183 n.2, 198  
 of Amoltepec, 214, 242–43  
 of Atlatlahuacan, Morelos, 242, 243  
 Aztec military maps, 228  
 cartographic histories, 204, 215  
 in Codex Aubin, 253  
 in Codex Boturini, 218, 221  
 in Codex Kingsborough, 189  
 in Codex Nuttall, 215, 215 n.92, 216, 217  
 in Codex Xolotl, 205, 206–7, 208, *pl.*9  
 of Cuauhtinchan, 205  
 of Don Miguel Damian's property, 225, 226  
 hieroglyphic, 184, 184 n.6, 190–91, 198–99, 199, 205, 206–7, 208, 244  
 in Historia tolteca-chichimeca, 220  
 Lienzo of Zacatepec 1, 203, 207–8, 209, 213  
 of Maní, 209, 210  
 Mapa de Cuauhtinchan 2, 222  
 Mapa de Santa Cruz, 244  
 Mapa de Sigüenza, 218, 219, 220  
 Metlatoyuca, 184, 184 n.6, 189  
 Mixtec circular maps, 210  
 reference map of Cuauhtinchan lands, 207  
 of Teozacoalco, 212, 213  
 of Tepetlaoztoc, 244  
 of Tetlitzaca, 246  
 Mixtec, 191, 201, 213  
 on native North American maps  
 by Ac ko mok ki, 133  
 by Bad Heart Bull, 123  
 Chickasaw map, 176  
 engraved on walrus tusks, 167  
 Inuit, 159  
 by Ishi, 118  
 by Kohklux, 115  
 by Lamhatty, 96  
 of Manitoba, 148  
 by Meliki, 162  
 Ojibwa migration scroll, 82–83  
 pictorial map, 117  
 Pokanoket land to be sold, 74 n.80  
 western Canada, 137  
 by Windigo, 154  
 on Oceanic maps, 448, 449–50  
 in song maps from Tubetube, 434  
 on toas, 383, 384  
 Trobriand, 431  
 Plains, 118. *See also* Great Plains  
 Plains Indians  
 on Bad Heart Bull's picture map, 119  
 celestial map by, 123–25, *pl.*7  
 in Howling Wolf's ledger art, 118  
 influence on Great Basin cartography, 114  
 and map of Qu'Appelle River, 129  
 and pictorial maps, 115 n.217  
 sun dance lodge, 181  
 Planchón de las Figuras, 225 n.115  
 Planets. *See also specific planets*  
 on Bonampak mural, 237–38, 255  
 on Evenk *tyngirin*, 335  
 on Hawaiian navigation gourd, 486  
 Mesoamerican interest in, 237  
 in rock art, 63  
 on Santa Cruz Pachacuti's drawing, 297  
 "Plan et Sicutatione des Villages Tchikachas," 101, 102, 177, 178  
 Planimetric perspective  
 in Andean cartography  
 map of Lake Titicaca shore, 265  
 on *maquetas*, 279 n.101  
 in Moche art, 278  
 in Peruvian rock art, 271  
 in Australian Aboriginal cartography, 367  
 ground paintings, 391  
 map of de Pury's vineyard, 409  
 map of Lake Polgu and Milgari Creek, 392  
 map of Mabuig Island, 399  
 map of Muranji rock hole area, 380  
 map of Yirrkala village, 410  
 stone arrangements, 387  
 in Eurasian Arctic and Subarctic cartography, 343, 344  
 in Māori cartography, 531 n.125  
 in Mesoamerican cartography, 196, 219  
 Codex Xolotl, 206, 208  
 Mapa de Cuauhtinchan 2, 222  
 Mapa de Sigüenza, 218, 219  
 in native North American cartography, 142 n.280  
 on Andrew's map, 149  
 in Howling Wolf's ledger, 120  
 Inuit, 155–56, 169  
 on Ki oo cus's map, 130  
 map by Kakekayash, 138 n.265  
 on Meliki's map, 160  
 mounds, 95  
 in pictographs, 82  
 on Quapaw bison hide, 117  
 rock art, 61, 181  
 in Oceanic cartography, 470, 471  
 in Papua New Guinea cartography, 435, 436  
 Plano de San Andres Sinaxtla, 196  
 Plano en papel de maguey, 184, 186–87, 196, 224, 252–53  
 "Plan of Camp" (Njien), 410, 411  
 "A Plan of Captain Carver's Travels" (Jonathan Carver), 145 n.287  
 Plans, Australian Aboriginal, 408–13  
 Plants. *See* Vegetation  
 Plaster, 254–55  
 Plateau Culture, 114  
 Plates, Maya cosmography on, 233–34, 235, 254–55  
 Platforms, 282, 288  
 Playdon, George, 484–85  
 Plazas  
 on Bolivian landholding amulet, 269  
 and Mesoamerican cosmography, 229, 235  
 on Sayhuite Stone, 288  
 Pleasant River, 173  
 Pleiades (constellation)  
 in Australian Aboriginal mapping, 369, 370  
 and Carolinian navigation, 463, 465, 474, 475  
 in Eurasian Arctic and Subarctic cosmography, 339  
 on Hawaiian navigation gourd, 486  
 in Lakota cosmography, 121  
 Mesoamerican interest in, 237  
 in Navajo rock art, 65, 67  
 in Navajo sandpainting, 109  
 and navigation, 457 n.42  
 Nazca geoglyphs and, 276  
 observed from Coricancha, 286 n.133  
 Old Temple at Chavín de Huántar and, 272  
 in Primeros memoriales, 239  
 in South American and Caribbean celestial mapping, 304, 305  
 in South American and Caribbean cosmology, 305, 318  
 on Tello Obelisk, 273  
 Plover (ship), 157  
 Plover Bay, 348, 349  
 Plumas. *See* Ihuítlan  
 Plymouth Colony, 73–74, 179  
 Pochteca (long-distance Aztec traders), 225–28  
 Podgorbunskiy, V. I., 340  
 Podkamen Tunguska, 343  
 Pohl, John M. D., 191  
 Point Barrow, 157  
 Pointe aux Barils, 79  
 Points, 132  
 Poisons, 319  
 Pokanoket (Wampanoag) Indians, 73–74, 179  
 Pokomoke Indians, 68, 69, 69 n.72  
 Poko Poko, 392  
 Polaris. *See also* Pole Star  
 and Carolinian and Arab star compasses, 488, 489  
 in Carolinian navigation, 463, 465  
 on Hawaiian navigation gourd, 486  
 and native North American mounds, 95  
 in Navajo sandpainting, 109  
 on Pawnee celestial chart, *pl.*7  
 in Polynesian navigation, 459  
 and "sacred calabash," 485  
 "Pole charts," 467  
 Poles, 359  
 Pole Star, 80, 333, 339  
 Politics  
 Andean, 263–64, 265, 265, 294  
 Australian Aboriginal mapping and, 408–13  
 Chickasaw map and, 101  
 Codex Xolotl and, 205–6  
 and Inuit mapping, 169–70  
 in Melanesia, 423–25  
 and "Nations Amies et Ennemies des

- Tchikachas," 103  
and South American and Caribbean land claims, 321 n.49
- Polk, James K., 79
- Pollux, 306
- Poloahilani, 486
- Polo de Ondegardo, Juan, 284, 291
- Polynesia. *See also* Oceania; *and specific islands*  
alignment of burials in, 497  
Cook discovers, 445  
decline of traditional navigation, 454  
defined, 419  
disappearance of traditional navigation, 451  
East, 420  
on map of Oceania, 418  
modern map of, 449  
navigational practices, 458–59  
settlement, 420  
settlers from in New Zealand, 493  
and stick charts, 485  
Tupaia's chart of, 446–51  
West, 419  
wind rose from, 458–59
- Ponam Islanders, 429–30
- Ponce Sanginés, Carlos, 281 n.110
- Ponce Stela, 280
- Ponds, 28
- Pontifical world, drawn by Guamán Poma, 295, 297, 299
- Pookmoosh, 68, 69
- Pools, 303
- Popocatepetl (Smoking Mountain), *pl.9*
- Popoluca, 207
- Popol Vuh*, 204, 236–37
- Poqoq, 272 n.59
- Poquen Cancha (House of the Sun), 258 n.8, 265–66
- Portages  
on Andrew's map, 149, 152, 178  
in circuit networks, 177  
on Dominique's map, 136  
on map of Rangeley Lakes region, 85  
on map of St. Lawrence, Connecticut, Hudson, and Susquehanna Rivers, 77 n.81  
on map of Susquehanna River, 76, 77  
on de Soto expedition map, 95 n.152  
on wampum maps, 89
- Port Bradshaw, Australia, 413, 414
- Port Cooper (Lyttelton), 503
- Port Hutt (Whangaroa Harbor), 511
- Port Jackson (Sydney), 513
- Port Moresby, 434
- Portolá, Gaspar de, 113
- Portolan charts, 538
- Ports, 80
- Portugal, 324
- Posnansky, Arthur, 282–83, 283 n.119
- Postcards, 118, 119
- Posts, 366, 379, 539
- Potatoes, 267, 293, 294
- Potomac River, 69, 71
- Pottery. *See* Ceramics
- Pounamu* (nephrite or greenstone), 493, 493 n.3, 516, 523, 524
- Powell, John Wesley, 62
- Power, 414
- "The Power of Maps" (exhibition), 56 n.26
- Powhatan, 69–70, 70 n.76, 72
- Powhatan Indians. *See* Algonquian Indians
- Powwows, 179
- Pozdnyakov, F. I., 339, 340 n.36
- Prabu*, 450
- Prairie hens, 85
- Prairie River, 83
- Pratt, Captain, 118
- Praus, Macassian, 411–12, 413
- "Pre-Columbian," defined, 183 n.4
- "Pre-Hispanic," defined, 183 n.4
- Preservation Inlet (Rakituma), 516, 533
- Pretty Cloud, Dollie, 119 n.225, 123
- Primeros memoriales, 252–53  
Aztec constellations in, 238, 239  
celestial maps in, 254–55  
map of Tenochtitlan in, 225, 225 n.116, 227
- Primogeniture, Melanesian, 424, 424 n.6
- Prince Alexander Mountains, 440
- Prince Regent Inlet, 159
- Procyon, 121, 306
- Production. *See* Map production
- Proes, 450
- Profile  
in Andean cartography  
Moche art, 278  
Núñez Jiménez's catalog of Peruvian rock art, 271  
Santa Cruz Pachacuti's drawing, 295, 296, 297  
Tello Obelisk, 273  
in Eurasian Arctic and Subarctic cartography, 331, 345, 346  
in European cartography, 90, 90 n.131  
in Māori cartography, 523  
in Mesoamerican cartography, 224  
in native North American cartography  
in Howling Wolf's ledger, 120  
Inuit, 166, 169  
on Lamharty's map, 98–99  
map by Kohklux, 115, 117  
map of Maine coastline, 90, 91  
on Meliki's map, 160  
mounds, 95  
pictographs, 82  
rock art, 61
- Projections  
Mercator, 453–54, 469  
and native North American mapping, 176
- Promontories, 413
- Promyshlenniki* (traders), 330 n.6
- Property maps, Mesoamerican, 187, 252–53  
cadastral maps, 221–24, 252–53  
frequency of survival, 196  
individual properties, 224–25, 226  
shape of, 196
- Protomaps, 426 n.9
- Psychocosmograms, 181
- Public Record Office, London, 93–94, 509 n.70, 531–32, 533
- Puebla  
cloth maps made near, 195  
itinerary histories in, 218  
maps of, 196, 205, 206, 207, 250–51
- Pueblo Indians, 53
- Pueblos. *See also* Settlements  
on Mesoamerican maps, 187  
on Miguel's map, 126  
Zuni map of, 108
- Pukahereka. *See* Coal Island
- Pukaki (Pūkaki), *pl.24*
- Pukekōhe pā*, 526
- Puketakauere pā*, 526
- Pulap Atoll, 470
- Pulleine, R., 416
- Puluwat, 469, 471
- Puluwat Atoll, 468
- Pumap Chupan (puma tail), 285
- Puma Punka, 282
- Pumas  
as metaphor, 285, 285 n.129  
on Sayhuite Stone, 288
- Pumaurqu, 295 n.180
- Pumice, 501 n.41
- Punaruku Island, 512
- Puna zone*, 278, 279
- Punchau, 287
- Puoho o te Rangī, Te. *See* Te Puoho o te Rangī
- Puquios* (underground canals), 277–78, 277 n.93
- Purce, Jill, 331 n.16
- Purgatoire River, 61, 63, 66
- Purunaminali, 317
- Pury, Samuel de, 409–10
- Puwepa, 486
- Puysegur (Tawhitiwhitiroro) Point, 516
- Pwuuupw* (triggerfish or Southern Cross), 467
- Pwuuupwunapanap* (great triggerfish), 467
- Pyramid Lake, 113
- Pyramids  
Andean, 279, 282  
Mesoamerican, 225, 225 n.115, 229, 234
- Pyramid temple, 189
- Pyromancy, 142 n.280
- Pyroscapulimancy, 139, 142. *See also* Scapulimancy
- Q'ero River, 267
- Q'ero Valley  
agricultural landholdings, 263  
Inkarri on modern textile from, 299  
*pallay* from, 266–67, 267 n.38, 268, 297  
radial organization of landscape holdings in, 299
- Qheswa *pallay*, 267–68, 269, 297
- Qibla, 28 n.21
- Qibla maps, 29
- Q'inku (Kenko) Stone, 288, 289
- Qoipa, 270
- Quadrangle, 463, 464
- Quadrants  
in Andean organization of sky, 260, 261  
in Eurasian Arctic and Subarctic cosmography, 333, 336

- Quadrants (*cont.*)  
   on map of Tenochtitlan, 193, 194, 236  
   in Mesoamerican cosmography, 229, 231, 232, 233
- Quahog clams, 88
- Quahuil* (unit of measurement), 203
- Quapaw (Arkansas) Indians  
   on "Nations Amies et Ennemies des Tchikachas," 103  
   on native North American pictorial map, 117  
   painted hide, 117, 172, 180, *pl.6*
- Qu'Appelle River, 129
- Quartsoppy, 112
- Quartz Peak, 108
- Quaxochamatl* (term for *mappamundi*), 187 n.11
- Quebec  
   map of Moisie River, 136, 138, 180  
   on map related to King William's War, 94  
   on Micmac gestural map, 52, 68–69  
   Micmac birchbark mapping, 79–80  
   survey maps of, 152
- Quebradas, 271. *See also* Ravines
- Quechuan Indians. *See* Yuman Indians
- Quechuas  
   and body-landscape metaphors, 268–69  
   celestial organization, 260, 260 n.14, 261  
   language, 283 n.119  
   and maps regarding Lake Titicaca reed beds, 263–64, 265, 265 n.27  
   Pacariqtambo ritual mapping, 266–67, 267 n.38, 268, 270
- Queen Charlotte's Sound, 501
- Queen Maud Gulf, 152
- Quirós, Pedro Fernández de. *See* Quirós, Pedro Fernández de
- Quenepenon, 77, 79
- Quetzalcoatl, 237, 239, 240, *pl.10*
- Quetzalhueyac, 218–19, 222
- Quiché Mayas. *See* Mayas, Quiché
- Quimsachta range, 280
- Quinipissa Indians. *See* Bayogoula Indians
- Quinoa, Peru, 264–65, 266, 297
- Quipus. *See* *Khipus*
- Quirós, Pedro Fernández de, 445
- Quispe, Lorenzo, 263
- Rabbits, 393
- Rabbit Tracks (constellation), 65, 67
- Race Track (constellation), 121
- Racká (Rakah), 35
- Radial perspective, 229
- Radial structure of Andean landholdings, 262–65, 266, 275–76, 290 n.159, 291 n.169, 297, 299
- Rae, Mr., 157
- Rae Isthmus, 166
- Rafters, 485 n.105
- Ra'iatea, 450
- Rain, 316, 530
- Rainbow Snake, 357
- Rain forests, 430
- Rainy Lake (Lac de Tecamiouen), 144
- Raisz, Erwin, 38 n.68
- Raka (god of winds), 459
- Rakah. *See* Racká
- Rakaia River (Rakaia Waiki), 523, 524, 535
- Rakaia Waipākihi. *See* Mathias River
- Raki (north), 497
- Raki, Te. *See* Te Raki
- Rakiraki, 520, 521 n.101, 531, 534
- Rakituma. *See* Preservation Inlet
- Rakiura. *See* Stewart Island
- Rākohu. *See* Chatham Islands
- Raleigh, Walter, 319, 322 n.51, 323, 324–25
- Ralik chain, 453–54, 456–57, 480, 482, 490
- Ranautagin, 345, 347
- Rancho El Tajo, Baja California, 61
- Rangatiratanga* (kingdom), 501
- Rangeley Lakes region, Maine, 85, 86
- Rangga* (sacred posts), 359, 366
- Rangiauria. *See* Pitt Island
- Rangihau. *See* Pitt Island
- Rangi Hiroa, Te. *See* Te Rangi Hiroa
- Rangitāne tribe, 499 n.33, 503
- Rangitoto Island, 525, 526, 534–35
- Rapa, Te. *See* Te Rapa
- Rapa Nui. *See* Easter Island
- Rapids  
   and Andrew's map, 149  
   on Eurasian Arctic and Subarctic maps, 343  
   on Jimmy Anderson and Curly Head's map, 148  
   on Māori maps, 518, 531 n.125  
   on map of St. Lawrence River, 67–68  
   on map of western Canada, 137–38  
   types of, 137–38 n.26
- Rarohēnga (Underworld), 497
- Rarotonga, 475 n.81
- Rasguño de las Provincias del Nuevo Mexico (Enrico Martínez), 126, 126 n.240
- Ratak chain, 453, 454, 456–57
- Rats, 461
- Rattles, 311, 314
- Rauarube* (fern), 513
- Raureka, 524
- Rautenstrauch-Joest Museum, Museum für Völkerkunde, Cologne, 490
- Ravdonikas, V. I., 331, 331 n.15
- Ravines, 128–29, 285. *See also* Quebradas
- Rāwhiti (east), 497
- Rays, 278. *See also* Nazca lines
- Razsokha River, 345
- Real Academia de la Historia, Madrid, 225 n.116
- Realism, 278
- Rear* (east), 477, 479
- Rebbelib* (*rebbelith*) stick charts, 479, 480–82, 484, 485
- Rebukāe*, 482
- Rebuses, 198–99
- Recitations, 467–68
- Reckoning, dead  
   in Carolinian navigation, 449, 469, 470–71  
   *etak*, 471–75, 489  
   *Hōkūle'a* and, 461, 461 n.51  
   in Oceanic navigation and cartography, 459–60
- Reclus, Elisée, 35
- Rectangles  
   in Andean rock art, 271  
   on Eurasian Arctic and Subarctic map by Antonov, 340  
   on Mesoamerican maps, 210, 236  
   and native North American mounds, 95  
   in Navajo sandpainting, 110  
   on Q'ero *pallay*, 266–67  
   on Qheswa *pallay*, 267  
   in southern African agriculturalist engravings, 19
- Rectangular maps, Mesoamerican, 196, 210
- Red Bird, Stanley, 125
- Red Deer River, 130, 161
- Red Kangaroo Dreaming, 405, 408
- Red River, 71 n.77, 100, 105
- Red Sky, 82, 83
- Reed beds, 263–64, 264 n.27, 265, 297
- Reefe, Thomas Q., 32
- "Reef Hole Probing," 468
- Reefs. *See also* Coral  
   on Australian Aboriginal maps, 397, 399  
   and Carolinian navigation, 465–66, 467  
   on Māori maps, 511, 514, 531 n.125  
   and triggerfish, 470
- Reference islands, 470–71, 473, 474
- Reference maps  
   of Africa, 13, 25, 38  
   of Australia, 352, 379  
   Arnhem Bay, 405  
   of Djarrakpi area, 375  
   Goromuru River, 403  
   south-central, 396  
   of central Andes, 258  
   of Eurasian Arctic and Subarctic, 328  
   of lowland South America and Caribbean, 302  
   of Mesoamerica, 184  
   Cuauhtinchan lands, 207  
   Maya region, 210  
   Mixtec region, 209  
   Valley of Mexico, 207  
   of New Zealand, 502  
   Chatham Islands, 511  
   Lake Wairarapa and Lake Onoke area, 509  
   Stewart Island, 517  
   Waimakariri, Rakaia, and Ashburton Rivers, 524  
   Waitaki and Clutha drainage, 518  
   of North America, 58–60  
   of Papua New Guinea, 424  
   of Yupno settlements, 439
- Registers, Mesoamerican, 215, 224 n.106
- Reichard, Gladys, 110
- Reichel-Dolmatoff, Gerardo, 308–9
- Reindeer

- in Eurasian Arctic and Subarctic cosmography, 335, 336, 337  
herding, 329, 348  
Rēinga (North Cape), 500, 501, 509, 531  
Reinhard, Johan, 280 n.104  
Reko, 504–5  
Rēkohu. *See* Chatham Islands  
*Relaciones* (Fernando de Alva Ixtlilxochitl), 190  
*Relaciones geográficas*, 244–45, 246  
maps in  
of Amoltepec, 196, 210, 214, 248–49  
of Coatepec Chalco, 201  
of Ixtapalapa, 200, 201  
of Oaxtepec, 200  
of Teozacoalco, 196, 210, 212, 213, 244, 248–49  
of Tetlitzaca, 245, 246  
The Relation of a Voyage into New England (James Davies), 90, 90 n.131  
*A Relation of the Second Voyage to Guiana* (Lawrence Keymis), 324–25  
Religion. *See also* Christianity  
Andean, 265, 269–70  
and Australian Aboriginal topographic representations, 360–61, 388  
and cardinal directions, 27–28 n.21  
Māori, 531  
and Melanesian mapping, 425  
in Mesoamerica, 241  
Aztec, 236  
Catholicism, 240, 241, 244  
and naming of Caribbean islands, 324  
native North American, 82–83, 84 n.107, 109 n.193, 177, 181 nn.365, 366  
shamanistic, 13–14, 15, 16  
Remote Oceania  
defined, 419  
difficulty of navigating to isolated islands, 461  
European penetration, 444–46  
on map of Oceania, 418  
settlement, 419–22, 487, 489  
Renata Kawepo Tama ki Hikurangi, 501  
*Repo* (swamp), 513  
Representational maps, Melanesian, 425–26 n.9  
Repulse Bay, 159  
Repulse Sound, 162  
Reservoirs, 262, 264, 297  
Residence, Inka rules for, 260  
Resource zones. *See* *Parajes*  
Reuther, J. G., 369, 383–84, 385  
Reyes García, Luis, 191  
*Reyes y reinos de la Mixteca* (Alfonso Caso), 190  
Rhimweniwenipwukúw, 470  
Rhode Island, 73, 179  
Rhumb lines, 474  
Rice, wild, 80  
Richards, Rhys, 510  
Richmond, Virginia, 68  
Ridges, 434  
Riese, Frauke Johanna, 209  
Riesenberg, Saul H., 466  
Rigel, 121  
*Rilib* (backbone, eastern) swells, 476–77, 478, 479, 480, 482, 484  
Rincón-Mautner, Carlos, 251  
Ringatū Church, 512  
Rings, 311, 317, 320. *See also* Circles  
Río Azul, 197, 234, 254–55  
Rio Branco, 324  
Río Seco, 262  
Ripples, 85  
Rites, cartographic, 3  
Andean, 258, 269–70, 299  
ephemeral maps constructed during, 287  
*huacas* and, 287, 288  
Inka, 287–88, 289  
*khipus* and, 290  
Moche, 278–79  
Nazca geoglyphs and, 276  
at Old Temple at Chavín de Huántar, 271  
Pachacuti Inka Yupanque and, 286  
Paracas, 273–74  
Santa Cruz Pachacuti's drawing and, 295  
at Tiwanaku, 282  
Navajo, 109  
Nivkhi bear hunting, 344–45  
in South American and Caribbean cartography, 303  
Rittscher, Adolf, 490, 492  
Ritual maps  
from Melanesia, 438–40, 441, *pl.* 23  
native North American, 108–12  
and South American and Caribbean cosmology, 316–18  
Rivas, Martín de, 99 n.166  
Rivers, 322. *See also* Water  
on African maps, 35, 36, 43  
on Andean maps, 269, 278, 278, 285  
in Andean rock art, 271  
on Australian Aboriginal maps, 390, 391  
as boundaries, 262, 263, 286  
in circuit networks, 177  
Cossack routes following, 330 n.5  
on early European maps of Americas, 302  
in Eurasian Arctic and Subarctic cosmography, 339  
on Eurasian Arctic and Subarctic maps  
by Antonov, 340  
on birchbark, 343, 344, 345  
on blazed trees, 345  
Chukchi wooden board maps, 341–42, 343  
by Enkachan, 340  
by Evenks, 339, 339 n.36  
of Maya River and Sea of Okhotsk, 339 n.36  
on European maps, 145  
van den Bosh map, 97  
by Percy, 70, 72  
Rasguño de las Provincias del Nuevo Mexico, 126 n.240  
Smith's 1612 map of Virginia, 71  
de Soto expedition map, 95, 95 n.152, 97–98  
Velasco map, 70 n.76  
Evenk knowledge of, 339, 340  
as *huacas*, 265  
Inka association with pumas, 285, 285 n.129  
Inuit concern with, 145  
in late twentieth-century Inuit art, 169  
on Māori maps, 531 n.125  
von Haast's map, 523  
of Lakes Wairarapa and Onoke, 534  
of Rakaia and Ashburton River headwaters, 535  
by Rakiraki, 534  
by Reko, 505  
by Ropoama te One, 535  
of Rotorua lakes, 536  
of South Island, 505, 514  
by Te Huruhuru, 534  
by Te Ware Korari, 535, 537–38  
Māori toponyms for, 493  
on Mesoamerican maps  
of Amoltepec, 214  
of Apoala Valley, 216  
of Atlatlahuacan, Morelos, 242  
in Codex Fejérváry-Mayer, 236  
in Codex Kingsborough, 189  
in Codex Nuttall, 215, 216  
by Cortés, 187  
Metlatoyuca, 189, 249  
of Motecuhzoma's domain, 228  
of Zolipa, Veracruz, 243  
in Mesoamerican pictograph, 201  
on native North American maps, 176, 179  
by Andrew, 149  
birchbark, 79, 80  
on blazed tree, 86  
Chickasaw map, 101, 176  
Comanche ephemeral maps, 128–29  
by Corn Tassel, 106  
by Howling Wolf, 118  
Indiana and Illinois, 91, 93  
by Ishi, 115  
by Lamhatty, 96, 97–98  
La Vérendrye's map, 144, 145  
made for Farfán de los Godos, 108  
made for Lewis and Clark, 114  
by Miguel, 126  
by Non-Chi-Ning-Ga, 135, 177–78  
by Paiutes, 113  
Shuswap map, 114  
Susquehanna River, 74, 77, 179  
wampum maps, 89  
Nazca geoglyphs and, 276  
Ojibwa pictographs for, 82  
in South African rock art, 538  
in South American and Caribbean cartography, 303, 320, 323  
in South American and Caribbean cosmology, 311  
in Yupno worldview, 437

- Riverton, 508  
 “Rivière au Vermillon,” 145, 179  
 Road belts. *See* Wampum, belts  
 Roads. *See also* Streets  
 Andean  
   as boundaries in San Andrés de Machaca, 262, 263  
   *ceque* system and, 286  
   Inka system of, 288–89, 290  
   on Moche landscape vessel, 279  
   Nazca geoglyphs as, 276  
   on Qheswa *pallay*, 269  
   on Sayhuite Stone, 288  
   at Tiwanaku, 283  
 labyrinths as, 332  
 on Māori maps, 529, 531 n.125  
 on Mesoamerican maps  
   of Atlatlahuacan, Morelos, 242  
   in Codex Kingsborough, 189  
   Humboldt Fragment 2, 222  
   Metlatoyuca, 189, 249  
   military map from Codex Florentine, 228  
   Plano en papel de maguey, 187, 224  
   of Tetlitzaca, 246  
 on native North American maps, 80, 89, 101  
 symbols for on Eurasian Arctic and Subarctic shamans’ costumes, 333  
 Roanoke Island colony, 67 n.60  
 Roberts, Allen F., 31  
 Roberts, Henry, 508 n.64  
 Roberts, Mary Nooter, 32  
 Roberts, W. H. Sherwood, 521, 521 n.102  
 Robinson, Michael, 399  
 Robinson-Huron Treaty, 79  
 Robinson-Superior Treaty of 1850, 151  
 Rocha River, 262  
 Rock art, 3, 5, 7, 541. *See also* Petroglyphs  
   African, 8 n.35, 13–23, 26  
   Andean, 270–71  
   Asian and North American, 171  
   Australian Aboriginal, 354, 355–57, 359, 366, 374–75, 379  
   difficulties in dating, 61  
   difficulties in interpreting, 57  
   Eurasian Arctic and Subarctic, 329–31, 348  
   native North American, 51, 181  
   from Baja California, 61  
   from California, 61  
   cosmographical and celestial subjects, 63–66, 67  
   and cosmography, 54  
   difficulties in interpreting, 66  
   Mohave Rock petroglyph, 61–62, 63  
   from Nevada, 61, 62  
   terrestrial maps, 57, 61–63, 64, 65  
   South American and Caribbean, 301  
 Rockland, Archie, 408  
 Rocks  
   and Amerindian medicine wheels, 54  
   Andean maps using, 285  
   and Australian Aboriginal maps, 397, 399, 411–12, 539  
   in *ceque* system, 287  
   depicted on Murik baskets, 440 n.48  
   as *huacas*, 265  
   Inka carved landscapes on, 288, 289  
   on Māori maps, 514, 531 n.125  
   in Melanesian mapping, 427  
   on Mesoamerican maps, 189, 193  
   Mesoamerican pictographs for, 200  
   native North American maps using, 68, 69, 77, 159  
   in New Zealand, 493, 493 n.3  
   on Sayhuite Stone, 288  
   and sleeping circles, 63  
   South American and Caribbean maps on, 301  
   in Taypikala, 280  
 Rock-shelters, 15, 65, 520  
 Rocky Mountains  
   Ac ko mok ki’s maps of, 132, 132 n.251, 253, 133  
   Indian maps from, 114  
   on Ki oo Cus’s map, 130, 132  
   scant evidence of maps and mapmaking in, 106  
 Rodman, Admiral Hugh, 485–86  
 Rodríguez, Juan, 126, 126 n.240  
 Roes Welcome Sound, 161, 162  
 Roggeveen, Jacob, 445  
*Rolok* (something lost) swells, 478, 478 n.89, 479, 480  
 Rongelap Island, 484  
 Rongerik Island, 484  
 Rongowhākata, 512  
 Roop Lake, 268  
 Ropes, 203, 204, 286  
 Ropoama te One, 525, 525 n.115, 526–27, 531, 535  
 Ropononowini, 324–25  
 Rorty, Richard, 2 n.3  
 Rose, Deborah Bird, 356  
 Rose, Frederick, 408  
 Roseires, 47  
 Ross, John, 159, *pl.*8  
 Rotation of Milky Way, 261  
 Rotorua. *See* Lake Rotorua  
 Rotuma, 450  
 Roundhouses, 311, 316  
 Route maps  
   native North American, 68, 149, 152–53, 177, 178  
   Njoya’s farm to Fumban, 42  
 Routes  
   on Aztec military maps, 228  
   Cossack records of, 330  
   between divinity and humanity, 311  
   on Eurasian Arctic and Subarctic maps, 342, 344  
   in Eurasian Arctic and Subarctic rock art, 331  
   importance to Caribbean natives, 324  
   on native North American maps, 179, *pl.*6  
   as native North American references, 53  
   Nazca geoglyphs as, 276  
   on single-path maps, 177, 178  
 Rowe, John Howland, 273 n.63  
 Royal Geographical Society, 324  
 Ruahikihiki, Te. *See* Te Ruahikihiki  
 Ruamahanga River, maps of, 509–10  
 Ruapuke Island, 513  
 Rubber, 301  
 Rugs, 111, 181, 355  
 Ruka te Aratapu, 513, 536  
 Rulers, 101  
 Rumihuasi Stone, 288  
 Rundstrom, Robert A., 5–6, 154 n.299  
 Rupununi River, 323, 324  
 Rurutu, 448  
 Russia and Russians  
   maps of, 330 n.8, 339, 340 n.36  
   Pacific explorers from, 445  
   in Eurasian Arctic and Subarctic cosmography, 339  
   on Eurasian Arctic and Subarctic maps, 349  
   reopening to West of museum collections, 171  
   and study of Eurasian Arctic and Subarctic cartography, 330, 348  
 Ruta, 518 n.92  
 Sabatele, 37  
 Sabatis, 84  
 Sacagawea, 114–15  
 Sackatú (Sokoto), 35  
 Sacramento River, 115  
 Sacred bundles, 124–25  
 “Sacred calabash,” 485–86  
 Sacred Hoop (constellation). *See* Race Track (constellation)  
 ‘Sacred Places at Milmindjarr’ (David Malangi), 371–73, *pl.*17  
 Sacrifice, 183, 227, 232, 233  
 Saddles, 531 n.125  
 Saelgeaedne, 337  
 Sagos, 313  
 Sahagún, Bernardino de, 212 n.83, 225, 238  
 Sahara, 38, 38 nn.69, 70  
 “Sailing days,” 473  
 Saīr (buzzard star) (constellation), 112  
 Saint Augustine, Florida, 118  
 St. Johns River, 118, 119  
 St. Lawrence Bay, 348, 349  
 St. Lawrence River, 77  
   on map related to King William’s War, 94  
   maps of, 67–68, 77, 77 n.81, 78–79, 172, 178  
   sketches of obtained by Champlain, 71–72  
   on Velasco map, 70 n.76  
 St. Louis River, 83  
 Saint Michael, Alaska, 166–67 n.328, 167  
 Saint Thomas (Tomé), 309  
 Saipan, 467, 468, 469  
*Sak* (rain forests), 430  
 Sakhalin Island, 5 n.16, 338, 339  
 Salishan Indians, 52  
 Salmon, 162, 181



- Salmond, Anne, 495, 508, 508 nn.67, 69  
 Salmon River, 62  
 Salt, 95 n.152, 129, 179  
 Salta, Argentina, 271  
 Salt Fork, Arkansas River, 129  
 Salt licks, 303  
 Samar, 452–53  
 Sam Chief, 109–10  
 Sami people, 329, 330, 337, 348  
 Samoa, 419, 420, 451  
 Samoan Islands, 450  
 Samoyeds, 330, 330 n.8  
 San. *See* Khoisan  
 San Andrés de Machaca, Bolivia, 262, 263, 299  
 San Andres Sinaxtla, 210  
 San Bernardino Mountain, 112  
 Sanctuaries, royal, 288  
 Sand, 541  
   African maps in, 38–40, 41  
   Australian Aboriginal drawings in, 391, 408  
   as Australian Aboriginal painting medium, 354  
   Australian Aboriginal sculptures in, 357, 358  
   Lagediack's map drawn in, 453  
   Māori maps in, 505, 505 n.52, 511, 525, 531  
   native North American maps in, 112–13, 159, 172, 180 n.365  
   Oceanic maps in, 443  
   South American and Caribbean maps in, 320  
 Sandbars, 341, 345, 347  
 Sandpainting, 5, 180 n.365. *See also* Ephemeral maps; Painting  
   lack of information about origins and evolution of, 109 n.193  
   native North American, 175  
   and cartography, 109 n.193  
   Navajo, 65, 106, 109–11, 118  
   from southern California, 111–12  
 "Sand stories," 365 n.54, 408  
 Sandy Lake, 83, 85  
 San Francisco Peaks, 110  
 San Gorgonio Peak, 112  
 Santa Barbara channel, 113  
 Santa Catalina Island, 112  
 Santa Cruz, Alonso de, 95, 96, 244  
 Santa Cruz Islands, 455  
 Santa Cruz Pachacuti Yamqui Salcamayhua, Juan de, 285, 294–95, 295, 296, 297  
 Santa María Natívitás, Lienzo de, 252–53  
 Santa Rosa de Tastil, 271  
 Santee Sioux Indians, 58, 127 n.241  
 São José, Chief, 317  
 Saqsahuaman, 288  
 Sarakka, 337  
 Sarfert, E., 472  
 Sarmiento de Gamboa, Pedro, 284, 285  
 Saskatchewan River, 133  
 Sassamon, John, 73–74  
 Satawal Atoll, 467 n.69, 470  
   and *etak*, 471, 472  
   star compass from, 462, 463, 464  
 Saturn, 237–38, 255, 486  
 Sauk Indians, 136  
 Saussure, Ferdinand de, 9  
 Savannah River, 83, 96, 118, 119  
 Savannas, 303  
 Saveliy, 336–37, 338, 339  
 Savinov, D. G., 331 n.17  
 Savvateev, Yu. A., 331, 331 n.15  
 Sawtooth Mountains, 63  
 Saya, 139  
 Sayhuite Stone, 288  
 Scale  
   on Andean maps, 285  
   of Australian Aboriginal maps, 394  
   on engraved shell cup, 103  
   on map drawn for Kingsley, 36  
   on Mesoamerican maps, 200–203, 208, 219  
   of native North American maps, 56, 137, 176, 177  
   by Howling Wolf, 119  
   map of Pokanoket land to be sold, 74  
   Susquehanna River, 77  
   on traditional maps, 538  
 Scapulimancy, 139, 141–42, 176  
 Scarification, 25, 30, 31. *See also* Body art; Tattoos  
 Schele, Linda, 237–38  
 Schematization, 379, 380–81  
 Schomburgk, Richard, 320  
 Schomburgk, Robert, 324  
 Schoolcraft, Henry Rowe, 79, 80, 81, 85, 85 n.112  
 Schools, 320  
 Schooners, 349  
 Schouten, Willem, 445  
 Schouten Islands, 427  
 Schroeder, Albert H., 61–62, 63  
 Schubert, W., 491  
 Schuyler, David, 94  
 Scorpio (constellation), 239, 304, 305  
 Scorpis, 65, 67  
 Screenfolds, 109 n.193, 196, 196 n.38, 197, 203, 208 n.72, 215, 222, 230, 240  
 Scrolls, 55, 82–84, 82 n.99  
 Scrying, 142 n.280  
 Sculpture, 541  
   Australian Aboriginal (*see* Toas) earth, 354, 541  
   Mesoamerican, 197, 225, 241  
   sand, 357, 358  
 S-designs, 98  
 Sea charts. *See* Nautical charts  
 Seal rookeries, 531 n.125  
 Seals, 159, 347, 349  
 Sea of Okhotsk, 339 n.36  
 Sea of the drowned, 339  
 Sea of the "master of waters," 339  
 Seas. *See also* Oceans  
   Australian Aboriginal conception of, 369, 371  
   on Australian Aboriginal maps, 390  
   in Eurasian Arctic and Subarctic cosmography, 337, 339  
   in Mesoamerican cosmography, 185  
   on Smith's 1612 map of Virginia, 69  
   in Warao cosmology, 310  
 Seasons  
   Australian Aborigines and, 371  
   in Navajo sandpainting, 109  
   and Navajo star ceilings, 66  
 Section views, 363–64 n.43, 391, 392, 399, 409–10  
 Seidou, Sultan, 44, 44 n.90, 45  
 Seler, Eduard, 239 n.155  
 Seler 2. *See* *Lienzos*, of Coixtlahuaca 2  
 Sel'kup people, 333, 343–44, 346  
 Selmo, Sapiel, 173  
 Selwyn, George Augustus, 501  
 Semen, 304  
 Semicircles  
   on Ac ko mok ki's map of Rocky Mountains, 132  
   on Andean maps, 263  
   on Ket drum, 337  
   on Ki oo Cus's map, 132  
   on Percy's map, 72  
   in southern African agriculturalist engravings, 19  
 Seneca Indians, 53, 89, 90  
 Sepik Hills, 440, 441  
 Sepik River, 426–27, 439  
 Sepopo, 35  
 Serov, S. Ia., 333 n.21  
 Serpentine, 493  
 Serpents. *See* Snakes  
 Setakanim, 112  
 Settlement  
   Oceanic, 487–89  
   South American and Caribbean maps regarding, 320  
 Settlements, 539. *See also* Homesteads; Pueblos  
   African  
     in KwaZulu-Natal region, 20  
     layout as maps, 25  
     on map for d'Ollone, 36  
     on map for Kingsley, 36  
     on map of Bamum, 43  
     in Njoya's survey of kingdom, 42  
     northern Sotho patterns of, 21–22  
     on Ras Makonnen's map, 47  
     on route map between Njoya's farm and Fumban, 42  
     in southern African agriculturalist engravings, 18–19  
     Tabwa, 31  
     Tswana patterns of, 21  
   Andean  
     on Guamán Poma's maps, 295, 299  
     *khipus* and, 293  
     in rock art, 271  
     on van den Bosh map, 97  
     on Eurasian Arctic and Subarctic maps, 343, 349  
     in Gawan mapping, 429 n.23  
     Māori, 493, 531 n.125, 534

- Settlements (*cont.*)  
 on Melanesian maps, 430  
 in Mesoamerican landscape painting, 256  
 on Mesoamerican maps, 244  
 of Atlatlahuacan, Morelos, 241, 242  
 Aztec military maps, 228  
 cartographic histories, 204  
 in Codex Kingsborough, 189  
 in Codex Xolotl, 206, *pl.9*  
 cosmographical, 235–37  
 of Maní, 209, 210  
 Metlatoyuca, 189  
 of Tetliztaca, 246  
 on native North American maps, 69, 179  
 Acktis Island, 112  
 Bering Strait Eskimo map, 159  
 Chickasaw and Catawba maps, 101  
 by Gero-Schunu-Wy-Ha, 133  
 by Ishi, 118  
 Lahontan's map, 128  
 made for Farfán de los Godos, 108  
 "Nations Amies et Ennemies des Tchikachas," 103  
 by Non-Chi-Ning-Ga, 135  
 pictorial map, 117  
 on Quapaw painted bison hide, *pl.6*  
 Rasguño de las Provincias del Nuevo Mexico, 126  
 by Sitting Rabbit, 124  
 on Pacific Basin maps, 436, 440, 441  
 South American and Caribbean  
 Chief São José's ideal layout for, 317  
 and cosmology, 303–4, 308, 311, 313  
 on landform model, 320  
 layout of and celestial events, 305  
 and mapping of celestial entities, 304  
 on Raleigh's map of Guiana, 325  
 in Yupno worldview, 436, 437  
 7 Tecpatl, 221  
 Severed heads  
 on Nasca pottery, 277–78, 278 n.94, 297  
 on Paracas gourd, 274  
 on Paracas polychrome mantle, 273  
 as soul motif, 299  
 Seward Peninsula, 167  
 Sexual intercourse  
 of Boa and Pleiades, 304  
 depicted on Melanesian shields, 431, 432, 433  
 in *ida* ritual, 440, 441  
*Sezemabidi* (arboreal tree spirits), 434  
 Shadows  
 and Andean timekeeping, 266–67 n.37  
 in Desana origin myths, 305–6  
 on Q'ero *pallay*, 266, 268  
 Shadrin, Mr., 345  
 Shafts, granite, 272  
 Shaman-bird, 316  
 Shamanism  
 in Eurasian Arctic and Subarctic, 329, 330, 332–33, 333 n.21, 334, 348  
 and southern African rock art, 13–16  
 Shanawdithit, 73 n.79  
 Shape  
 of Mesoamerican maps, 196  
 and native North American mounds, 95  
 on Piedra Cansada, 288  
 of Quinua pottery, 265  
 Shargorodskiy, S., 343  
 Shark (spirit), 404  
 Sharks, 466  
 Shark totem, 377, 377 nn.83, 84, 378  
 Sharp, Andrew, 461  
 Shaula, 471  
 Shawanaga Inlet, 79  
 Shawnee Indians, 89, 96  
 and van den Bosh map, 96 n.156, 97  
 and Lamhatty's map, 99 n.162  
 Sheard, L. E., 392  
 Shells  
 cups made from, 103, 103 n.172, 105  
 on Iatmul dancers and art, 439  
 in kula system, 430–31  
 on *lukasa* memory boards, 32, 48, *pl.2*  
 maps using, 541  
 on Marshallese stick charts, 479, 480, 482  
 on Tello Obelisk, 272  
 and wampum, 88, 176  
 Shelters, 118  
 Sherbondy, Jeanette, 287  
 Shields, 541  
 Australian Aboriginal maps on, 539  
 Australian Aboriginal paintings on, 355, 357, 379  
 on map of Tenochtitlan in Codex Mendoza, 193  
 as Melanesian maps, 431, 432, 433  
 Ship Mountains, 63  
 Ships  
 on Guamán Poma's map of Inka empire, 299  
 Iglulik sketch of location of, 157  
 in late twentieth-century Inuit art, 169  
 on Meliki's map, 160  
 Shipwrecks, 514  
 Shirokogoroff, S. M., 333  
 Shoals, 465–66, 470  
 Shona aristocracy, 17  
 Shorelines. *See* Coastlines  
 Shortland, Edward  
 on Māori linear measurement, 495–96  
 Māori maps published by, 513–14, 514 n.86, 516–20, 533, 534  
 and Mantell's map, 521 n. 101  
 and *Map of the Colony of New Zealand from Official Documents by John Arrowsmith*, 521 n. 102  
 Shoshone Indians, 65, 114–15  
 Shrines, 5  
 Shrubs. *See* Vegetation  
 Shternberg, L. Ia., 339 n.34  
 Shuswap Indians, 114  
 Siassi traders, 428  
 Siberia, 171  
 cosmography, 330, 333, 335, 340–41  
 Sierra de Guadalupe, 61  
 Sierra Nevada, 61, 106, 113, 115  
 Signs, 5. *See also* Pictographs; Symbols  
 cartographic, 48  
 celestial, 43  
 on Guamán Poma's map of Inka empire, 295  
 labyrinth, 331–32, 333  
 Mesoamerican, 183, 193, 198, 253  
 V-shaped, 30, 31  
 Sigüenza, Mapa de, 218, 219, 219, 220, 222  
 Siliceous stone, 171  
 Silver, 283  
 Silverman, Eric, 4–5, 540  
 Silverman, Helaine, 278 n.94  
 Silverman-Proust, Gail P., 263, 267, 269  
 Simpson, John, 157  
 Simpson, Thomas, 157  
 Single-branch networks, 177, 178  
 Single-path maps, 177, 178  
 Sininiyo, 470  
 Sinú, 324  
 Sio Island, 428  
 Siouan languages, 99 n.165  
 Sioux Indians, 58, 86–87, 126–27 n.241.  
*See also* Lakota Sioux Indians  
 and mirroring, 176  
 Wahpekute map of upper Mississippi Valley, 129, 130  
 word for "map," 52  
 Sirius, 121, 459 n.46, 486  
 Sisseton Indians, 58  
 Site-path framework, 381–83  
 Sitting Rabbit (I Ki Ha Wa He, Little Owl), 121, 123, 124, 133, 173, 179  
 Size  
 of Bello's map, 34  
 of *lienzos*, 215  
 of native North American birchbark scrolls, 84, 84 n.107  
 of wampum belts, 89  
 Sketches, 3  
 Skidwarres, 90, 90 n.131  
 "The Skies" (sandpainting by Franc J. Newcomb), 110, *pl.5*  
 Skiko, 67 n.60  
 Skinner, T. K., 496  
 Skinner, William Henry, 496  
 Skins, animal  
 Eurasian Arctic and Subarctic maps on, 346, 349  
 Koryak celestial map on coat made from, 333–34, 336, *pl.14*  
 Mesoamerican maps on, 194, 195–96, 248–49, 252–53  
 native North American maps on, 51, 56, 90–94, 108, 114, 115, 117, 123–27, 135–39, 140, 141, 173, 176, *pl.6*  
 Quapaw painted, 117, 172, 180, *pl.6*  
 rug, 355  
 in sacred bundles, 125  
 value of, 113  
 Zuni painted, 172  
 Skipper, Peter, 367, *pl.16*  
 Skiri Indians. *See* Pawnee Indians  
 Skis, 331, 332, 344

- Skvortsov, E. F., 340
- Sky  
 Australian Aboriginal conception of, 369, 371  
 on Australian Aboriginal toa, 370  
 in Eurasian Arctic and Subarctic cosmography, 333, 335, 339  
 in Kiowa cosmography, 53  
 on map of "Yurok idea of the world," 181  
 in Mesoamerican cosmography, 229  
 in Codex Fejérváry-Mayer, 229–30  
 in Codex Ríos, 234, 236  
 on Lord Pacal's sarcophagus lid, 237  
 on Maya plate, 235, 255  
 on stela at Izapa, 185, 234, 255  
 on Tizoc stone, 238  
 in native North American cosmography, 53, 139  
 on Nasca pottery, 277  
 in Navajo sandpainting, 109, 110  
 as reflection of terrestrial relationships, 301  
 symbols for, 181
- Sleds, 162, 164, 344. *See also* Dogsleds
- Sleeping circles, 63
- Sleigh boards, 333, 335
- Smallpox, 339
- Smith, John  
 and Algonquian cosmography, 52, 69, 70, 175, 181 n.367  
*A Map of Virginia*, 69, 70 n.76, 71  
 and Percy's map, 70, 72  
 and Powhatan's map, 69–70  
 and Velasco map, 70, 70 n.76
- Smith, Mary Elizabeth, 187 n.12, 191  
 on European influence on Mesoamerican maps, 212 n.83  
 and Lienzo of Zacatepec 1, 207–8  
 on Mesoamerican cartographic histories, 204–5
- Smith, Nicholas N., 84 n.108
- Smithsonian Institution, 166–67 n.328, 492
- Snake of being, 310, 315
- Snake River, 62, 64, 65
- Snakes  
 on Australian Aboriginal maps, 393  
 in Australian Aboriginal myths, 539  
 in Codex Nuttall, 215, 216  
 in Eurasian Arctic and Subarctic netherworld, 333  
 on Nasca pottery, 277  
 and native North American mounds, 95  
 on Ojibwa migration scroll, 83  
 on Sayhuite Stone, 288  
 in South American and Caribbean cosmology, 310, 324  
 on Tukano cosmic fertility map, *pl.13*  
 in Tukano origin myth, 309
- Snow, maps in, 159, 339
- Snow houses, 160
- Social classes, Inka, 286
- Social life, Melanesian, 423–25
- Society  
 Andean, 259, 260–62  
 as Melanesian maps, 428  
 Tukano, 305
- Society Islands  
 burials in, 497  
 disappearance of traditional navigation, 451  
 settlement, 420  
 Tupaia pilots *Endeavour* to, 448  
 on Tupaia's chart, 450
- Sokoto. *See* Sackatú
- Solar disks, 238
- Solar path, 271, 280
- Solar World, 339
- Solar years, 291
- Soloman, 505–6, 508
- Solomonic kings, 30
- Solomon Islands, 419
- Solstices, 286 n.133, 316
- Sommay (Sumé), 309
- Songlines, Australian Aboriginal, 360, 361, 384  
*The Songlines* (Bruce Chatwin), 360, 360 n.37
- Songs, 3, 4–5. *See also* Music  
 Australian Aboriginal, 360, 384  
 in Carolinian navigation, 467–68  
 as Melanesian maps, 434–35  
 and South American and Caribbean cartography, 325–26  
 and South American and Caribbean cosmology, 311, 313, 316  
 transmission of information through, 322
- Sonqocha* lines, 267
- Sorokin, Pitirim Aleksandrovich, 2, 2 n.4, 3 n.6
- Sotho societies, 23
- Soto, Hernando de, 95, 96, 97–98
- Sotuta, 196, 210
- South  
 on Bernus's maps, 40  
 in Mesoamerican cosmography, 203, 231–32, 233, 234  
 in Navajo sandpainting, 110
- South Africa, 16. *See also* Africa
- South America, 301–26. *See also* Andes  
 celestial maps, 304–18, 319  
 cosmography, 304–18, 319, 540  
 coverage of, 8 n.35  
 in Eurasian Arctic and Subarctic cosmography, 339  
 Europeans' inclusion of native information from, 322–25  
 historical reports of indigenous mapmaking, 319–22  
 maps of  
 Hipana village, 319, 320  
 lack of permanent, 257  
 Mapa de la Provincias de los Aruacas, 323–24, 325  
 Raleigh's map of Guiana, 324–25  
 reference map, 302  
 Ye'cuana historical-cultural map, 321–22
- Southampton Island, 162
- South Asia, 181
- South Australian Museum, Adelaide, 359, 387–92, 393, 401, 415–16
- South Carolina, 99, 101, *pl.4*
- South Dakota, 55, 120–21, 123, 176, 179
- Southeast Asia, 421
- Southern Alps, 523, 524, 530
- Southern Cross (Crux), 457, 457 n.42, 463, 465, 467, 486
- Southern Island. *See* Stewart Island
- South Island (Te Wai Pounamu). *See also* New Zealand  
 burials on, 497  
 exploration, 493  
 Māori population, 493  
 maps of, 533, 534, 535  
 made for Halswell, 494, 494 n.7  
 Māori, 503–6, 508, 513–25  
 by Hone Tūhawaiki, 513–14, 516, 517  
 by Mantell, 521, 521 n.101, *pl.24*  
 obtained by von Haast, 523, 524  
 by Te Huruheru, 514, 516, 518–20  
 by two Rangitāne, 499 n.33  
 rainfall, 530  
 and toponyms, 498–99  
 on Tuki's map, 508  
 vegetation, 530
- South Saskatchewan River, 129–32, 179
- Space  
 Andean conceptions of, 258–70, 261, 274, 280, 281  
 Australian Aboriginal depictions of time in, 371  
 and *ida* ritual, 440, 441  
 on Mesoamerican maps, 190  
 in Mixtec codices, 191  
 schematic depiction of on Metlatoyuca, 184  
 and time in Mesoamerican cartography, 191–204, 232, 247
- Spain and Spaniards  
 and Andes  
 cultural change, 271  
 on Guamán Poma's map of pontifical world, 295, 297  
 lack of surviving Inka maps, 258  
 and Mapa de la Provincia de los Aruacas, 323  
 reliance on geographic knowledge of Inka officials, 285  
 and Mesoamerica, 210, 240–47  
 and Chalca rebellion against Tenochtitlan, 228  
 conquistadores, 183, 196, 229  
 and destruction of Motecuhzoma Xocoyotzin's empire, 222  
 influence on circumambulation, 220, 220 n.102  
 land grants, 245  
 legal system, 213, 224, 225, 226  
 and Lienzo of Zacatepec 2, 213  
 on Mapa de Santa Cruz, 244  
 preservation of Aztec maps, 208, 221  
 and North America, 106, 108  
 Chickasaws and, 101

- Spain and Spaniards, and North America  
(*cont.*)  
 contact with Pawnee Indians, 124 n.231  
 settlements on van den Bosh map, 97  
 Pacific explorers from, 445  
 and Philippines, 451  
 and South America and Caribbean, 313, 324
- Spanish language  
 on Andean maps, 265  
 in Codex Florentine, 228, 252–53  
 learned in Mesoamerica, 242  
 prevalence of documents in, 245  
 terms for map, 185
- Spatial constructs, 3
- Spatial deixis, 53 n.6, 434
- Spears, 162, 164
- Spear-throwers, 355, 357, 364, 541
- Speck, Frank G., 141–42, 142 n.277
- Speech, 3
- Spiders, 221, 278
- Spink, John, 156–57
- Spirals  
 in Eurasian Arctic and Subarctic, 331 n.16, 332, 333  
 on *lukala* maps, 32  
 on Maya representations of earth's surface, 200 n.54
- Spirit maps, Andean, 274, 275, 299
- Spiro, Oklahoma, 57, 103, 103 n.172, 105
- Spondylus shell, 272
- Spoons, ritual, 344
- Spring Mountain, 113
- Springs. *See also* Water  
 Andean  
 associated with pumas, 285  
 as *huacas*, 265  
 on map by Guamán Poma, 262, 264  
 in rock art, 271  
 on Sayhuite Stone, 288  
 on Māori maps, 531 n.125  
 on Te Ware Korari's maps, 535
- Sprites, water, 108–9
- Spy maps, Aztec, 225–28
- Square maps, Mesoamerican, 196
- Squares  
 on Delaware cosmographical map, 91  
 in drawing of house of Manco Capac, 295  
 on Mowaljarlai's map, 415  
 and native North American mounds, 95  
 in Ye'cuana cosmology, 319
- Squid, 371, 372
- Squid and Turtle Dreamings* (Liwukang Bukurlatjpi), 371, 372
- Squirrels, 342
- Sri Lanka, 421, 488
- Staatliches Museum für Völkerkunde, Dresden, 490
- Staatliches Museum für Völkerkunde, Munich, 491
- Stack, James West, 498, 523–24
- Staehelin, Felix, 322
- Stafford, D. M., 529
- Staffs, 284, 306, 337
- Stags, 346
- Stairways, 282
- Stakes, wooden, 275, 275 n.77
- Standing Rock Indian Reservation, 124
- Stanner, W. E. H., 360, 403–5, 407
- Star ceilings, Navajo, 65–66
- Star charts. *See* Celestial maps
- Star compasses, 458, 539  
 accuracy of, 460  
 Arab, 488  
 Carolinian, 462, 463–65, 487, 488–89  
 Oceanic, 443  
 “Star compass rose,” 458
- Star courses, 466
- “Star path” compass, 463, 464
- Star paths  
 Bugis and, 488  
 Carolinian learning of, 465  
 of celestial anaconda, 308  
 on map of Barasana cosmos, 307  
 Milky Way, 304, 305  
 on South American and Caribbean maps, 320
- Star People, 319
- Star Plan* (Njien), 368–69
- Stars  
 in African cartography, 27, 43  
 in Andean cartography, 260, 261, 297  
 in Australian Aboriginal cartography, 369, 370  
 in Eurasian Arctic and Subarctic cartography  
 celestial maps, 334, 336, *pl.14*  
 cosmography, 333, 337, 340  
 Iatmul view of, 428  
 on Mesoamerican celestial maps, 187, 239, 255  
 in native North American cartography  
 Navajo, 65, 67, 109–10, 111, 181, *pl.5*  
 Pawnee celestial chart, 125, *pl.7*  
 rock art, 63, 181–82  
 in Oceanic navigation, 455, 457, 457 n.42, 458  
 Carolinian, 444, 462, 463, 464–65  
 on Hawaiian gourds, 486  
 Indonesian, 488, 488 n.113  
 mental, 443, 444  
 Polynesian, 458–60  
 Tahitian, 446  
 in South American and Caribbean cartography  
 celestial, 304, 305, 320  
 cosmology, 304, 316
- Star Woman (Pleiades), 307
- State Historical Society of North Dakota, 121, 173
- State Library of South Australia, 391–92, 401
- Statues, 280–81
- Stelae  
 Mesoamerican, 184  
 at Izapa, 185, 234, 235, 254–55  
 Maya, 198  
 at Tiwanaku, 280–82, 281 n.110, 299
- Stephen, W. H., 521 n. 101
- Stevenson, Robert Louis, 491
- Stewart, Paddy Japaljarri, 362
- Stewart Island (Rakiura)  
 Cook failed to visit, 513 n.83  
 maps of, 513–14, 517, 533, 534  
 omitted from Tuki's map, 493, 508  
 reference map, 517
- Stick charts, Marshallese, 1, 6 n.22, 475, 476, 479–85, 487, 489–92
- Stick rattles, 314
- Sticks, 541  
 Andean maps using, 285  
 as Australian Aboriginal painting medium, 355  
 Māori maps using, 531  
 for measuring latitude, 485  
 native North American use of, 67–68, 69, 84, 128–29, 159
- Stingray (spirit), 404
- Stippling, 320
- Stokes, John F. G., 485–86
- Stolbovaia River, 345
- Stone. *See also* Rock art  
 Mesoamerican cosmographic maps carved in, 241, 254–55  
 settlements in KwaZulu-Natal region, 20  
 as southern African building material, 17–18
- Stone Age, 13
- “Stoney Mountains,” 146
- Strachey, William, 90 n.131
- Streams. *See also* Water  
 African, 42  
 on Andean maps, 263–64, 285  
 in Andean rock art, 271  
 on Māori maps, 531 n.125, 534, 536  
 Māori toponyms for, 493  
 in Melanesian song maps, 434  
 on Micmac maps, 79  
 on native North American maps, 106, 113, 128–29  
 on Sel'kup fishing drawing, 346
- Streets, 285. *See also* Roads
- Strehlow, T. G. H., 361 n.37, 384
- Strehlow Research Center, Alice Springs, 359
- Strelov, E. D., 343
- String. *See also* *Khipus*  
 Australian Aboriginal art using, 359, 385  
 Nazca aglyphs and, 275, 275 n.77
- Stripes, 333
- Strips, of Andean landholdings, 262–65, 266, 297
- Struck, Bernhard, 42, 42 n.77
- Struve, B. V., 339 n.36
- Stuart Highway, 400
- Stucco, painted, 197
- “The Study of Indian and Inuit Maps: Present and Future” (G. Malcolm Lewis), 56 n.29
- Stylization, 101, 123, 145
- Subarctic  
 Eurasian, 329–49  
 native North American, 135–54, 155, 156

- Subterranean views, 363 n.41
- Sudan, 38
- Suede, 333, 334
- Sulawesi (Celebes) Island, 488
- Suma y narración de los Incas* (Juan de Betanzos), 258
- Sumé (Sommay), 309
- Sun
- in African cartography, 27, 43, 541
  - in Andean cosmography
    - in Inka origin myths, 286 n.133
    - on *khipus*, 291, 293
    - motifs for, 266–67, 268
    - Nazca geoglyphs and, 276
    - on Santa Cruz Pachacuti's drawing, 297
    - on Tello Obelisk, 272
  - in Australian Aboriginal cartography, 369
  - on Cortés's map, 195
  - in Eurasian Arctic and Subarctic cartography
    - on Chukchi decorated paddle, 347
    - cosmography, 333, 334, 335, 337, 340
  - in Melanesian cosmography, 431, 431 n.32
  - in Mesoamerican cosmography, 201, 229, 232, 240
    - in Codex Fejérváry-Mayer, 230
    - on Lord Pacal's sarcophagus lid, 237
    - on Tizoc stone, 238
    - in tomb in Río Azul, 234
  - in native North American cartography
    - on Delaware map on blazed tree, 88
    - Kiowa cosmography, 53
    - Navajo, 110, *pl.5*
    - pictorial map, 117
    - rock art, 63
  - in Oceanic navigation, 457–58
    - Carolinian, 464
    - Hawaiian, 486
    - Tahitian, 446
  - in South American and Caribbean cartography
    - cosmology, 304, 315
    - map of vision quest, 310
    - Tukano cosmic fertility map, *pl.13*
    - Ye'cuana roundhouse and, 316
- Sun dance lodge, 181
- Sunlight, 266, 268
- Sunrise, 268, 316
- Sunset, 268, 286 n.133
- Sun-wind compasses, 497
- Supernovas, 64–65
- Surveying
- and Bad Heart Bull's map of Black Hills, 123
  - and cadastral map of New Hampshire, 91 n.133
  - Chimú kingdom and, 283–84
  - and indigenous mapping, 173
  - Inka, 286
  - and native North American mapping, 151–52, 154, 156
  - and Nazca geoglyphs, 275, 275 n.77
  - in New Zealand, 496, 528
  - and Njoya's map of his kingdom, 42, 48
  - at Tiwanaku, 282–84
  - and Toronto Purchase, 77
  - and Wahpekute map of upper Mississippi Valley, 129
- Susquehanna River, 71, 74–77, 77 n.81, 78–79, 138, 177, 178, 179
- Susquehannock Indians, 74–77
- Susquehannocks castle, 76
- Sutton, Peter, 4, 541
- Suyus* (subdivision of *ayllu*), 261
- and *ceque* system, 286
  - on Guamán Poma's map of Inka empire, 297, 299
  - and Inka resettlement of Cochabamba Valley, 262
  - roads as boundaries between, 289
- Sverbeev, N., 339
- Swahili, 28 n.21
- Swamps
- on Australian Aboriginal maps, 397, 399
  - on Māori ambush map, 513
  - on Te Ware Korari's maps, 535
  - in Valley of Mexico, 221
- Sweat baths, 201
- Sweetgrass, 125
- Swells, ocean
- in Carolinian navigation, 462, 463, 464, 467
  - defined, 476
  - in Indonesian navigation, 488
  - Marshallese piloting by, 444, 475–85
  - and Oceanic navigation, 443, 457–58, 460
- Sydney, Australia, 434
- Sydney, New Zealand. *See* Port Jackson
- Symbols, 10. *See also* Designs; Pictographs; Signs
- Andean
- cosmological, 274
  - organization of, 262
  - on Santa Cruz Pachacuti's drawing of Coricancha, 295, 297
  - Spanish failure to recognize, 258
- in Australian Aboriginal cartography, 377, 377 n.78, 79, 379
- on Cortés's map of Tenochtitlan, 194
  - cosmological, 274, 540–41
  - defined, 198, 198 n.48
  - in Eurasian Arctic and Subarctic cartography, 340
  - hill (*see* Hills)
  - on Māori maps, 531
  - on Melanesian shield maps, 431
  - on Mesoamerican maps, 185, 244
  - of Amoltepec, 241
  - cartographic histories, 215
  - Mapa de Sigüenza, 219
  - pictorial, 215
  - of Tenochtitlan, 193
- in native North American cartography
- Hearne's map, 146
  - Hidatsa map, 133 n.255
  - Lahontan's map, 127–28, 179
  - map by Bad Heart Bull, 119, 122
  - map by Gero-Schunu-Wy-Ha, 132–33
  - map by Ki oo Cus, 130, 132
  - map by Lamhatty, 98–99
  - map of Rangeley Lakes region, 85
  - Rasguño de las Provincias del Nuevo Mexico, 126
  - rock art, 181
- Symmetry
- and Australian Aboriginal mapping, 389, 401
  - on Australian Aboriginal paintings, 379, 381
  - on Bennett Stela, 281–82
  - of Tello Obelisk, 273
- Szabo, Joyce M., 118
- Tabasco, 184 n.5, 210, 228
- Tablas* (picture boards), 258 n.8
- Table shrines, 269, 269 n.46, 270
- Tablets, abacal maize, 291, 291 n.165, 293, 297
- Tabwa, 30, 31
- Tacchigis, 145
- Tacking, 474–75
- Taçon, Paul S. C., 356–57
- Tafahi. *See* Boscawen Island
- Tahiti
- compasses from, 497
  - Cook visits, 445–46
  - modern canoe voyage, 461 n.51, 468, 474
  - navigational practices, 458
  - Sirius passes directly over, 459 n.46
  - on Tupaia's chart, 446–51
- Tāhoata* (pumice), 501 n.41
- Tāhuhu (Otahuhu Point), 526
- Taiari. *See* Chalky Inlet
- Taiga, 340, 342, 343
- Tainui (Veritas), 505 n.52
- Tairona, 324
- Taiwan, 421
- Takamoana (Lake Alexandrina), *pl.24*
- Takapō. *See* Tekapo
- "Taking up the Land" (exhibition) (Canada house, London), 56 n.26
- Tak-roor (Tekrur), 35
- Taliaferro, Lawrence, 129, 129 n.249
- Tallapoosa River, 96
- Tama Mokau te Rangihaeata, 498–99
- Tamarod Indians, 103
- Tambourines, 347
- Tambunum, 428
- Tampu T'oco cave, 295, 295 n.180
- Tan*, 462
- Taniño nee cutu ñuu ñuyevui* (Mixtec term for *mappamundi*), 187, 187 n.12
- Taniwha* (monster residing in deep water), 518
- Tanna, 427 n.14
- Tanner, Adrian, 141
- Tanzania, 37
- Tapestries, 45, 46
- Tapirs, 305
- Tapschoka, 338
- Tapu* (under religious or superstitious restriction), 525

- Tarang Bank, 468  
 Tarapuhi, 505 n.52  
 Tararua Range, 509  
 Tardits, Claude, 42 n.77, 43 n.82  
 Tartars, 330  
 Tartary, 330, 338  
 Tassénocougoula River, 105  
 Tatou, 520  
 Tattoos, 25, 462 n.53. *See also* Body art; Scarification  
 τ<sub>3</sub> Eridani, 306  
 Tawa (hostile expedition, war party), 503 n.48, 512, 513, 516–18 n.92  
 Taumata (resting place and brow of hill), 530  
 Taunga ika (fishing ground), 497  
 Taupō. *See* Lake Taupo  
 Tauranga, 512  
 Tauranga Harbor, 512  
 Tawa inti qocha (sun at midnight motif), 266–67, 268  
 Tawa r'ika qocha motif, 267, 269  
 Tawatinsuyu (land of the four parts), 261  
 Taylor, Luke, 359, 392  
 Taylor, William A., 523, 523 n.109, 525, 535  
 Taymi canal, 264  
 Taypi (place in the middle), 280, 281, 282  
 Taypikala, 279–80, 282  
 Te Aitanga a Hauiti people, 513  
 Te Arawa iwi, 512–13, 528–30, 536  
 Te Ari Awa iwi, 503 n.45  
 Teben'kov, Mikhail Dmitrievich, 157  
 Tecali (Tecalli), 207, 222, 250–51  
 Technology, Aborigines and, 354 n.4  
 Tecoylqualoya, 236  
 Tecpatl (Flint Knife) (year sign), 203, 232  
 Te Heuheu Tukino II, 501, 503, 531  
 Te Horeta te Taniwha, 500, 501, 501 n.39  
 Tehuacán, 250–51  
 Tehuantepec, Isthmus of, 183, 196  
 Te Huruhuru  
   and Mantell's map, 521 n. 101  
   maps by, 514, 516, 518–20, 531, 534  
 Te Ika a Māui. *See* North Island  
 Teira, Te. *See* Te Teira  
 Tekapo (Tekapō; Takapō), *pl.*24  
 Te Kooti Arikirangi te Turuki, 509, 512–13, 536  
 Tekrur. *See* Tak-roor  
 Tello, Julio, 273, 274  
 Tello Obelisk, 272–73, 297, 299  
 Temimina Loya (Place Where One Shoots Arrows at Oneself), 236  
 Temple of Agriculture, Teotihuacan, 256  
 Temple of the Inscriptions, Palenque, 234  
 Temple of the Jaguars, Chichén Itzá, 184 n.5, 256  
 Temple of the Sun, Inka. *See* Coricancha  
 Temple of the Warriors, Chichén Itzá, 184 n.5, 256  
 Temples. *See also specific temples*  
   on Aztec military maps, 228  
   on Cortés's map, 195  
   on Mesoamerican maps  
   Metlatoyuca, 189, 249  
   in Primeros memoriales, 227  
   spy maps, 227  
   of Tenochtitlan, 194, 225, 227  
   Mixtec pictographs for, 201  
   Old Temple at Chavín de Huántar, 271–73  
   Poquen Cancha, 258 n.8  
 10 Acatl, 221  
 Tenamitic, 208  
 Tenayuca, 205, *pl.*9  
 Tendwa kia nza-n'kongo (the four moments of the sun), 27  
 Tenoch, 193, 194  
 Tenochtitlan, 183, 199, 218, 228, 244, 539  
   Chalca rebellion against, 228  
   in Codex Xolotl, 205, 208  
   on Mapa de Santa Cruz, 244, *pl.*11  
   on Mapa de Sigüenza, 219, 249  
   maps of, 225, 228 n.121, 252–53  
   in Codex Mendoza, 192–93, 193–94, 235–37, 244  
   by Cortés, 194, 195, 225  
   Nuremberg map, 244  
   in Primeros memoriales, 225, 225 n.116, 227  
   Plano en papel de maguey and, 224  
   population, 204  
 Tenochtili, 194  
 Tents, 337, 343, 344, 345  
 Tenuch. *See* Tenoch  
 Tenure, land, 213, 213 n.84, 221  
 Teotihuacan, 256  
 Teotl Cocauhea (Yellow Sky), 236  
 Teotl Tlatlauhea (Red Sky), 236  
 Teotl Yztaca (White Sky), 236  
 Teozacoalco, 196, 210, 212, 213, 244, 248–49  
 Tepanecs, 205  
 Tepantitla palace complex, 256  
 Tepe, 200  
 Tepeaca. *See* Tepeyaca  
 Tepechichilco (Red Hill), 246  
 Tepehua, 248–49  
 Te Peneha Mangu, 496  
 Tepetl (hill), 189, 199–200, 200 n.53, 201, 206, 244  
 Tepetlaoztoc, Mexico, 184, 189, 244, 250–51  
 Tepetli Monana Mycia (the Mountains That Clash), 236  
 Tepeyaca (Tepeaca), 207, 222, 250–51  
 Tepeyacac, 197 n.43  
 Te Puoho o te Rangi, 518 n.92  
 Tequixtepec, Lienzos of, 250–51  
 Te Raki, 516–18 n.92  
 Te Rangi Hiroa, 486  
 Te Rapa, 501  
 Te Rēinga. *See* Rēinga  
 Termite mounds, 379, 391  
 Terraces, 282, 288  
 Terracing, irrigation, 257  
 Territorial maps, Mesoamerican, 241, 242, 243  
 Territory. *See* Land  
 Te Ruahikihiki, 524  
 Teseuke, 162–65  
 Te Teira, 528  
 Tetlitzaca, 245, 246  
 Teton Indians, 58  
 Teton Peak, 132  
 Teton River, 132  
 Te Wai Pounamu. *See* South Island  
 Te Ware Korari  
   and Mantell's map, 521, *pl.*24  
   and *Map of the Colony of New Zealand from Official Documents by John Arrowsmith*, 521 n. 102  
   maps by, 494, 499, 520–23, 535, 537–38  
 Te Whanga Lagoon, 511  
 Texcoco, 205, 218, 252–53  
 Text. *See also* Words  
   on Bello's map, 35  
   on Gero-Schunu-Wy-Ha's map, 132  
   and image in Andean manuscripts, 294  
   on Inuit maps, 159  
   on map of Maine coastline, 90  
   on map of Mani, 209–10  
   on map of Zolipa, Veracruz, 243  
   on Ras Makonnen's map, 45  
 Textiles, 3, 5, 10. *See also* Cloth; Clothing  
   dancers on, 273 n.69  
   from Ica Valley, 273 n.67  
   Paracas, 273–74, 275  
 Texupa, 204  
 Tezalge, 40  
 Tezcatlipoca (creator god), 231, 232, 232 n.132  
 Thalbitzer, William Carl, 167–68  
 Thames, 500  
 Thelon Plain, 146  
 Thelon River (Great Indian River), 149, 152–53, 177, 178  
 Theresia, 305  
 Therianthropes, 14, 16  
 13 Flower, 215  
 13 Wind, 203  
 Thomas, Stephen D., 464  
   and *etak*, 472, 474  
   on “seamarks” in Carolinian navigation, 466  
   and segmenting of course line, 471  
   sketch of Carolinian star compass, 462, 463  
 Thompson, John Eric Sidney, 184 n.5, 209, 228 n.123  
 Thompson, Nainoa, 468, 487  
 Thompson River, 114  
 Thomson, John Turnbull, 505, 505 n.54  
 Thread, 290, 290 n.162  
 Three-dimensional maps, 168, 169, 176  
 Thule people, 171  
 Thum-merriy, 379  
 Thunderbirds, 63 n.46  
 Thunder ceremony, 125  
 Tiagashu, *pl.*8  
 Tianguismanalco (Place of the Market), 246  
 Tides  
   depicted on Murik baskets, 440 n.48

- in Hawaiian navigation, 487  
 on Māori map of South Island, 514  
 Tiffen, Henry Stokes, 509–10, 511, 534  
*Tifinag* script, 38–39  
 Tiger River, 339  
 Tiger Sea, 339  
 Tigray, 28, 29  
 Tikal, 234  
 Tilantongo, 212, 248–49  
 Tilbrook, Lois, 409  
 Tiles, engraved, 331, 331 n.17  
 Timber. *See* Trees  
 Timbira peoples, 311  
 Timbuktu. *See* Tombouctou  
 Time  
   Andean methods of telling, 266–67 n.37  
   and Carolinian navigation, 469, 473–74  
   in Mesoamerican cosmography, 191–204, 232, 247  
   on Q'ero *pallay*, 266–67, 268  
   and space, 191–204, 232, 247, 371  
 Timucuan languages, 96, 97 n.158  
 Tindale, Norman B., 356, 389 n.11, 392  
   Australian Aboriginal maps collected by, 387, 389, 395, 397, 415–16  
   on Australian Aboriginal mud maps, 407–8  
 Tingarri (ancestral men), 382  
 Tinker, John, 73, 179  
 Tinline, John, 503  
 Tioripātea (Haast Pass), 518 n.92  
 Tipis  
   Evenks and, 340  
   on Gero-Schunu-Wy-Ha's map, 133  
   on Ki oo Cus's map, 130  
   Oglala Sioux, 53, 181, 539  
*Tipua* (goblin, demon, object of terror), 518, 520, 531  
*Tira* (long strip), 196, 218  
*Tira de la peregrinación*. *See* Codex Boturini  
 Tired Stone. *See* Piedra Cansada  
 Titahi. *See* Howells Point  
 Titles, land, 220, 220 n.102, 241  
 Tiwanaku, 265, 279–84, 286 n.133  
 Tiyanquitzli (the Marketplace) (constellation), 239  
 Tizoc stone, 235, 238, 241, 254–55  
 Tjapaltjarri, Clifford Possum, 399–401, 402  
 Tjapaltjarri, Tim Leura, 400, 401, 401 n.41  
 Tjuburrula, Big Peter, 364, 380, 381  
*Tjurunga*, 359, 359 n.27, 365  
*Tlacatecatl* (military commander), 228  
*Tlacochealcatl* (military commander), 228  
 Tlahuizcalpantecuhtli (Dawn Lord), 239–40  
 Tlaloc (rain-agriculture deity), 227  
 Tlaltic Pac (the Earth), 236  
*Tlalticpac* (cultivated earth), 236  
*Tlapallacuiloapan* (colored painting or writing), 185  
 Tlapiltepec, Lienzo of, 219, 250–51  
 Tlatelolco, 204, 244, *pl.11*  
 Tlingit Indians. *See* Chilkat Indians  
*Tnatantja* poles, 359  
*Tnoho* (to pluck, as birds), 215  
*Tnubhu* (lineages), 215  
 Toad god, 310, 315  
*Tōanacāaxilohuāaquitobiladyōo* (Zapotec term for *mappamundi*), 187, 187 n.13  
 Toas, 1, 10, 358–59, 369, 370, 383–84, 385, *pl.20*  
 Tobacco, 125  
 Tobias, Nelle, 62 n.45  
 Tobolsk, 330 n.5  
*Tocapu* designs, 297  
 Tochtli (Rabbit) (year sign), 203, 232  
*Toenga* (remnant), 501  
 Toetoes Harbor, 517  
 Togo, 26–27  
*Tohu* (signs, landmarks), 497  
*Tohunga* (tribal experts, priests), 493, 496, 499, 508, 508 n.63  
 Toiawa, 495, 500, 500 n.37  
 Tolaga Bay. *See* Uawa  
 Tolmachev, I. P., 340  
 Tolman, Edward Chance, 4 n.10  
 Tolpetlac (Place of the Reed Mats), 221  
 Toltec Indians, 109 n.193, 218  
 Tombouctou, 36–37  
 Tombs. *See also* Burials; Graves  
   Mesoamerican, 234  
   Swahili, 28 n.21  
 Tomé (Saint Thomas), 309  
*Tonalquizayampa* (place of dawn), 230  
 Tonga, 419, 420, 451  
*Tonga* (south), 497  
 Tongan Islands, 450  
 Tongariro (active volcanoes), 501, 531  
 Tongariro National Park, 503  
 Tonkinson, Robert, 393, 399  
 Tonty, Henri de, 99 n.166, 105  
 Tooke-Titter-a-nui Wari Pedo. *See* Tuki  
 Toolemak, 157  
 Tools, 65, 84  
 Toongalook, 169–70  
 Tooulou, 36  
 Topa Inka, 287, 288, 293, 299  
 Topileta, 431, 433  
*Topo*. *See* *Tupu*  
 Topock, Arizona, 63  
 Topography  
   in African cartography, 21, 23  
   Australian Aboriginal representations of, 353–86, 381, 395, 395 n.28  
   means and interpretations, 366–73  
   range of artifacts, 354–59  
   regional examples, 375–84  
     desert, 379–84  
     northeast Arnhem Land, 375–76  
     western Cape York Peninsula, 377–79  
   rock paintings and engravings, 373–74  
   *ceque* system and, 286, 286 n.133  
   on Eurasian Arctic and Subarctic maps, 340 n.42  
   on birchbark, 342  
   on blazed trees, 343, 345  
   rock art, 331  
   on Māori maps, 531, 531 n.125  
   on map in Codex Xolotl, *pl.9*  
   omitted from Ojibwa message map, 86  
 Topology, 537–38  
 Toponyms. *See* Place-names  
 Toqua. *See* Chota  
 “The Torch of the Lagoon at Anúúfa,” 468  
 Toronto Purchase, 77, 79  
 Torres Strait Islanders, 353 n.1  
 Tortoises, 85  
 Totems  
   on Ac ko mok ki's map, 132, 133  
   Australian Aboriginal, 354–55 (*see also* Toas)  
   matrilineal, 383–84 n.100  
   patrilineal (*pintharra*), 383  
   in cartographic pictographs, 79, 80, 81  
   and Iatmul body painting, 438  
   on map by Howling Wolf, 119  
   Melanesian, 423–24, 426, 428, 429, 432  
   on native North American cosmographical maps on drumheads, 141  
   on Ojibwa message map, 86  
   on Sitting Rabbit's map, 124  
 Totomihuacán (Totomiuacque/Totomiuacan), 207, 248–49  
 Totonac, 248–49  
*Totoil* (bird), 199  
 Tourmaline, 152  
 Tovarimon, 117  
 Towasa Indians, 96–99  
 Townsend, Charles H., 492  
 Toxcatl festival, 232 n.132  
 Tracks  
   on Australian Aboriginal maps, 389  
   Dreaming, 360–61, 394  
   human, 395, 399, 414  
   mythological, 395, 395 n.28  
   snake, 393  
   on Australian Aboriginal rock engravings, 374  
   on Eurasian Arctic and Subarctic petroglyphs, 331, 332  
   on Mansi maps, 342  
   on Māori maps, 531 n.125  
   map of Rotorua lakes, 536  
   Ngāti Pikiao land-claim map, 529, 530  
   by Te Huruwuru, 534  
   on Mantell's map, *pl.24*  
   on map of Aektis Island, 112  
 Trade. *See also* Fur trade  
   Andean, 257, 293 n.173  
   Anglo-French rivalry over, 180  
   and Baré cosmology, 317  
   Cossack, 330, 330 n.6  
   and Eurasian Arctic and Subarctic cartography, 344–49, 349  
   Mesoamerican maps related to, 196, 225–29  
   on Mowaljarlai's map, 415  
   as purpose of map of Susquehanna River, 74–77  
 Trading posts, 124  
 “Traditional cartography,” defined, 2  
 Trail maps, 61  
 Trails. *See also* Paths

- Trails (*cont.*)  
 and design biting, 142  
 on native North American maps, 176  
   Chickasaw map, 176  
   Indiana and Illinois, 91, 93  
   by Ishi, 118  
   by Miguel, 126  
   by Paiutes, 113  
 on Te Arawa Māori map, 512  
 “The Transformation of Subjects into Objects” (Nancy Munn), 365  
 Transformations, maps of, 364–65  
 Transverse profiles, 98–99  
 Transylvanus, Maximilian, 445 n.7  
 Trapezoids, 110  
 Trapping, 179  
 Traveling, 493, 493 n.4, 498–99, 530, 531 n.125  
*Travels in West Africa* (Mary H. Kingsley), 36  
 Treasuries, 290  
 Treaties  
   in Howling Wolf’s ledger art, 118, 120  
   between Iowa Indians and United States, 134–35  
   between Iroquois and Canadian Indians, 93–94  
   map of Maní and, 249  
   Robinson-Huron Treaty, 79  
   Robinson-Superior Treaty of 1850, 151  
   Treaty of Hopewell, 105  
   of Waitangi, 503  
 Tree of Life, 335, 538  
 Trees. *See also* Bark  
   on Australian Aboriginal maps, 391, 392, 393, 397, 409–10, 413  
   as Australian Aboriginal painting medium, 354–55  
   on Australian Aboriginal paintings, 363–64 n.43  
   on Bad Heart Bull’s picture map, 119, 122  
   blazed  
     Eurasian Arctic and Subarctic, 342, 343, 345, 348  
     native North American maps on, 87–88, 176, 180  
   on Chukchi wooden board map, 341  
   in drawing of house of Manco Capac, 295  
   on Evenk shaman’s costume, 333, 334  
   on Hearne’s map, 146  
   as *huacas*, 265  
   on Jimmy Anderson and Curly Head’s map, 146  
   on Māori maps, 514, 531 n.125  
   in Melanesian song maps, 434  
   in Mesoamerican cosmography  
     in Codex Fejérváry-Mayer, 229–32  
     Mixtec, 215  
     on stela at Izapa, 185, 234  
   on Mesoamerican maps  
     of Apoala Valley, 216  
     in Codex Kingsborough, 189  
     Lienzo of Zacatepec 1, 209  
     of Maní, 210  
     Mapa de Santa Cruz, 244  
     Mapa de Sigüenza, 219  
     of Tetlitzaca, 246  
     in Zimbabwean rock art, 16, 17  
 Trengganu, 488 n.116  
 Trezise, P. J., 356  
 Triangles  
   in Aitij cosmology, 318  
   on Australian Aboriginal paintings, 379, 379 n.86  
   on cosmographic stela at Izapa, 185  
   on Eurasian Arctic and Subarctic blazed trees, 345  
   on Lakota celestial maps, 125  
   on Rasguño de las Provincias del Nuevo Mexico, 126  
 Trigger, David S., 405  
 Triggerfish, 467, 468, 469, 470  
 Trigo Mountains, 108  
 Trinity River, 126  
 Tripoli, 36–37  
 Trobriand Islands  
   conception of lines in, 6–7  
   indication of compass points, 435 n.40  
   mythology, 427  
   shields as maps in, 431, 432, 433  
   symbolic codes in shields from, 10  
 Troike, Nancy P., 184–85 n.6  
 Trois-Rivières, 94  
 Trotter, Michael Malthus, 497 n.22  
 Truckee River, 113  
 Truk. *See* Chuuk  
*Tsagi-mboe*, 428, 429  
 Tschopik, Harry, 270 n.48  
 Tsvetkov, V. P., 339–40 n.36  
 Tswana societies, 21  
*Tu*, 1–2  
 Tuamotu Archipelago, 474  
   and finding Rapa Nui, 461  
   on Tupaia’s chart, 448 n.19, 450  
 Tuan, Yi-Fu, 4 n.10  
 Tuareg  
   and African indigenous mapmaking, 36–37  
   Bernus’s maps of grazing areas, 38–40, 41  
   and Duveyrier’s map, 38, 38 n.69  
 Tua River, 431 n.32,  
 Tubetube, 434–35  
*Tubul*, 462  
 Tuckett, Frederick, 520  
*Tuhi* (delineate, draw), 494–95  
*Tuhituhi* (draw), 494–95  
*Tūhua* (obsidian), 493  
*Tūhua*. *See* Mayor Island  
 Tukanos, 301  
   cartography, 320  
   constellations, 306, 308  
   cosmology, 311  
     Biá’s fertility map, *pl.*13  
     hexagonal social organization, 306, 308  
     mythic boa, 305  
     origin myths, 309, 310  
     and rock of Nyí, 309, 314  
   ecological practices, 308–9  
   and shamanistic rituals, 6  
 Tuki (Tuki te Terenui Whare Pirau?), 493, 494–95, 501, 506, 507, 508–9, 508 n.63, 509 n.70, 531, 533  
 Tuki Tahua. *See* Tuki  
 Tula, 218  
 Tulancingo, Lienzos of, 250–51  
 Tuma, 431, 433  
 Tumong, 305  
 Tumuli, 354  
*Tuna* (eels), 510, 510 n.72, 514  
 Tundra  
   Evenk orientation in, 340  
   on Jimmy Anderson and Curly Head’s map, 146, 148  
   map of boundaries with forests in northern interior, 149  
   on Meatonabee and Idotlyazee’s map, 146  
   on Subarctic Indian maps, 178  
 Tungus. *See* Evenk people  
 Tunics, 294  
 Tunnels, 435  
 Tupaia, 453, 454, 473  
   chart of Polynesia, 446–51  
   as Māori interpreter, 500 n.37  
 Tupi-Guaranis, 301, 309, 313  
*Tupu* (*topo*) (Inka unit of measurement), 283 n.119, 289 n.156, 290  
*Tupua*. *See* *Tipua*  
 Turahuka, 518  
 Tūranganui (Gisborne), 512  
*Turas* (world trees), 333  
 Turnbull, Alexander, Library, Wellington, 513, 515, 532, 533, 535, 536  
 Turquoise, 110  
 Turquoise Prince (sun), 232  
 Turtle Mountains, 63  
 Turtles  
   in Australian Aboriginal cosmography, 371, 371 n.65, 372  
   in Australian Aboriginal rock art, 357  
   on Delaware map on blazed tree, 88  
   in Mesoamerican constellations, 237–38  
   as Ojibwa land pictograph, 82  
   x-ray image of from Western Arnhem Land, *pl.*15  
 Tuscan crosses, 70 n.76  
 Tuscarora Indians, 79, 96  
 Tusks, 541  
 Tussock, 530  
 Tuturau, 504, 505  
 Tututepec, 201  
 Twilight, 110  
 Twins, 272, 273  
 Two Men Dreaming, 394  
*Tyngirin* (pendant), 333, 335  
 Tyrrell, Joseph B.  
   canoe-route map made for, 149, 152–53, 177, 178  
   exhibition of maps collected by, 56 n.26  
   and Jimmy Anderson and Curly Head’s map, 146, 148  
   map obtained by, 152, 154



- Tywerrenge*, 359, 359 n.27  
*Tzitzitl* (demon of the dusk), 230–31  
*Tzompantli* (skull rack), 227
- Uabe River, 47  
 Uap (Yap), 420, 421, 454, 455  
 Uawa (Tolaga Bay), 513  
 Uda Valley, 339  
 Udskoye, 339  
 Uexotzinco. *See* Huexotzinco  
*Ugidunda* (upper world), 333  
 Ujae Island, 480, 482, 484  
 Ujelang, 480, 484  
 Ukali (Mercury), 486  
 Ulietea. *See* Ra'iatea  
 Ulloa, Francisco de, 108 n.184  
 Ulloak, 158  
*Uma* (low-elevation tropical biomes), 280, 281, 297  
*Umari* fence constellation, 308, 320  
*Umasuyu*, 281  
 Umbilical cords, cosmic, 317  
 Umeda people, 440, 441  
 Umiaks, 346, 347  
 Underworld, 538  
   in Eurasian Arctic and Subarctic cosmography, 332, 333  
   on drums, 334–35, 337  
   on Evenk shaman's costume, 333, 335  
   Orochi, 337  
   in Mesoamerican cosmography, 203, 229  
   on ceramic vessels, 197  
   in Codex Ríos, 234, 234 n.137, 236  
   on Lord Pacal's sarcophagus lid, 235, 237  
   on Maya plate, 233, 235, 255  
   Venus in, 240, *pl.10*  
   in native North American cosmography, 53, 139, 141  
   in South American and Caribbean cosmology, 309, 310, 311, 312  
 United States  
   maps of  
     by Aikon Aushabuc, 52, 68–69  
     Alaska, 143, 157, 158  
     Black Hills, 55, 120–21, 123, 176, 179  
     Bull Creek valley, 68  
     Cape Ann, 68  
     Catawba map, 99, 101, *pl.4*  
     Chesapeake Bay, 67, 67 n.60, 68, 69–70, 72  
     Chickasaw map, 99–101, 115 n.217, 173, 176  
     Colorado River, 61–62, 63, 108, 172, 177  
     Coteau des Prairies, 126–28  
     Indiana and Illinois, 90–91, 92, 93  
     James River, 68, 68 n.64  
     Kraus Virginia map, 69–70, 72  
     Lake Ontario, 142 n.280  
     by Lamhatty, 96–99  
     Maine, 68, 85, 86, 90, 91, 180 n.364  
     Manhattan Island, 68  
     by Martínez, 126, 126 n.240  
     Mississippi and Missouri Rivers, 134–35, 136, 137  
     Mississippi River, 129, 130  
     Missouri and South Saskatchewan Rivers, 129–32  
     New Hampshire, 91 n.133  
     New Mexico, 125–26, 127, 177, 179  
     northeastern California, 115, 118  
     northern and central Plains, 132–33, 134, 135  
     by Oneida Indians, 68  
     Pequot country, 73, 179  
     by the Pheasant, 68  
     Pokanoket land to be sold, 73–74, 179  
     Rocky Mountains, 132, 133  
     route from Richmond, Virginia, to the Appalachians, 68  
     St. Lawrence, Connecticut, Hudson, and Susquehanna Rivers, 77, 77 n.81, 78–79, 178  
     St. Lawrence–Great Lakes, 82, 83  
     St. Lawrence River, 67–68, 71–72  
     by Skiko, 67 n.60  
     de Soto expedition map of Florida and Gulf Coast, 95, 96, 97–98  
     Susquehanna River, 74–77, 138, 177, 179  
     territory west of Lake Superior, 145 n.287  
     Velasco map, 70–71  
     Virginia, 69–70, 70 n.76, 71, 72  
     Pacific explorers from, 445  
   United States Bureau of Ethnology, 62  
   United States Fish Commission, 490, 492  
   United States National Park Service, 61  
   United States Signal Service, 166 n.328  
   Universe. *See also* Cosmography; Cosmology  
     in Amerindian cosmography, 53  
     on map of “Yurok idea of the world,” 181  
     symbolized in native North American buildings, 181  
   Universiteitsbibliotheek, Amsterdam, 489  
   University Museum, University of Pennsylvania, Philadelphia, 491  
   University of California, Berkeley, 115, 118, 172, 172 n.351  
   University of Essex, 56 n.26  
   University of Toronto, 56 n.26  
   University of Western Australia, 392–99, 400, 401  
   Unuroa. *See* Arrowsmith Mountains  
 Upper New York Bay, 68  
 Upperworld, 538  
   in Eurasian Arctic and Subarctic cosmography, 332, 333  
   on drums, 334–35, 337  
   on Evenk shaman's costume, 335  
   Orochi, 337, 339  
   in Mesoamerican cosmography, 203, 240  
   on native North American drumheads, 141  
 Ural Mountains, 330  
 Urban centers. *See also* Settlements  
   Andean, 260  
   Mesoamerican maps of, 187, 196, 225, 227, 252–53  
*Urco* (high-elevation settings), 280, 281, 297  
*Urcosuyu*, 281  
 Urewera country, 512–13  
 Ursa Major. *See also* Big Dipper  
   in Carolinian navigation, 465, 466  
   and native North American mounds, 95  
 Urton, Gary, 271–72, 276–77, 295 n.180  
*Uru* (west), 497  
 Uruguay, 8 n.35, 541  
 USSR. *See* Russia  
 Usuman dan Fodio, 35  
 Utensils, 354–55  
 Uto-Aztecans Indians, 52  
 Uurel', 346
- Vacecha Indians. *See* Bahacecha Indians  
 Valley of Mexico, 191, 244, 539, *pl.9*. *See also* Mexico  
   changes in native maps in, 244  
   in Codex Boturini, 221  
   in Codex Xolotl, 205, 206  
   in Culhua-Mexica migration, 219  
   on Humboldt Fragment 2, 222  
   itinerary histories in, 218  
   on Mapa de Santa Cruz, 244, *pl.11*  
   map media used in, 196–97  
   maps of, 184, 186–87, 189, 196, 248–49, 252–53  
   property, 203, 224  
   reference, 207  
   terrestrial, 221  
   palace complexes in, 225 n.115  
   systems of land tenure, 213 n.84  
 Valleys  
   on Bad Heart Bull's map of Black Hills, 179  
   in Comanche ephemeral mapping, 128–29  
   on Moche landscape vessel, 279  
   on wampum maps, 89  
   in Yupno worldview, 436  
 Valverde, Don Francisco de, 125–26, 127  
 Vansittart Island, 164, 166  
 Vasiliev, V. N., 333 n.22  
 Vega, 463, 465, 486  
 Vega, Garcilaso de la, 285  
 Vegetation  
   in Achuar system of landmarks, 303  
   on Andean maps  
     Bennett Stela, 282  
     by Guamán Poma, 262–63, 264  
     *khipus*, 293, 294  
     Paracas textiles, 273  
     Tello Obelisk, 272, 273  
   and Australian Aboriginal paintings, 354, 367  
   on Chukchi wooden board map, 341  
   in Mesoamerican cosmography, 236  
   on Mesoamerican maps  
     Mapa de Sigüenza, 219  
     Relación geográfica map of Amoltepec, 214

- Vegetation, on Mesoamerican maps (*cont.*)  
of Tetlitzaca, 246  
of Zolipa, Veracruz, 243, 244  
in Moche art, 278  
in Mountain-Ok mythology, 427  
on native North American maps, 73  
by Bad Heart Bull, 119, 122  
by Ki oo Cus, 129, 179  
Nazca geoglyphs shaped like, 275  
in New Zealand, 530  
Quechuas equate with constellations, 260  
n.14  
in Zimbabwean rock art, 16
- Vehicles  
on Mapa de Santa Cruz, 244  
on native North American message maps,  
84
- Velasco map, 70–71
- Vénard, Etienne de, sieur de Bourgmont,  
124 n.231
- Venezuela, 322
- Venice, 195
- Venus  
in Codex Borgia, 239–40, 253, *pl.10*  
Cook observes, 446  
in Eurasian Arctic and Subarctic cosmo-  
graphy, 335, 339  
on Hawaiian navigation gourd, 486  
on Maya cosmographical plate, 235  
Mesoamerican interest in, 237  
as morning star, *pl.10*  
in native North American rock art, 65  
in Navajo sandpainting, 109  
in Primeros memoriales, 239  
in tomb in Río Azul, 234  
in Tukano night sky, 308
- Verbal maps, Melanesian, 434–35
- Verde River, 108
- Verticality, 260 n.12
- Vertical perspective, 340 n.42
- Vessels, ritual, 345, 348
- Victoria Island, 157
- Victory (ship), *pl.8*
- Vietnam, 421
- Views, 412. *See also* Perspectives  
aerial, 363 n.41  
panoramic, 194  
perpendicular, 410  
section, 363–64 n.43, 391, 392, 399,  
409–10  
subterranean, 363 n.41
- Vilcanota, 286 n.133
- Vilcanota River, 260 n.14
- Villages. *See* Settlements
- Villasur, Pedro de, 124 n.231
- Vineyards, 409–10
- Vinnicombe, Patricia, 13
- Viracocha, 280 n.103, 281, 286, 287
- Viracocha Inka, 289
- Virginia  
Algonquian cosmography from, 52, 69,  
70, 175, 181 n.367  
Percy's map of, 69–70, 72  
route map to the Appalachians, 68  
Smith's 1612 map of, 69, 70 n.76, 71
- Virú Valley, 283, 284
- Vision quests, 310
- Visita (inspection tour), 262
- Visscher, Nicolaes, 285 n.130
- Volcanoes  
in Aitiij cosmology, 318  
Iatmul people and, 440  
on Korra-korra's map, 501  
on Te Heuheu Tukino II's map, 501
- Vollmar, Rainer, 55, 57
- V-shaped signs, 30, 31
- Vyg River, 331, 332, 343
- Wabash Land Company, 91
- Wacheksta River, 271
- Wager Bay, 161, 162
- Wagner, Roy, 431, 431 n.32, 434
- Wahgi language, 434
- Wahpekute (Wah paa Koo ta) Sioux Indi-  
ans, 58, 129, 130
- Wahpeton Indians, 58
- Waiariki, 516
- Waiau River, 505, 506, 506 n.62
- Waihapu, 513, 536
- Waihola. *See* Waihore Lagoon
- Waihore (Ellesmere), 514
- Waihore Lagoon (Waihola), 514
- Waimakariri River, 523, 524
- Waimate North, 501, 503
- Waiparera inlet. *See* Waituna Lagoon
- Waipuku River, 496
- Waipurua Bay, 511
- Wairarapa, 530
- Wairau Bar, 497
- Wairaurahiri River, 506
- Wairewa (Forsyth), 514
- Wairua (spirit), 497, 501, 509, 531
- Waistbands, 294
- Waitaha, 8, 524
- Waitaki River, 514, 516  
on admiralty chart, 519–20  
and place-names, 521, 521 n.102, 522,  
523  
reference map, 518  
on Reko's maps, 505  
on Te Ware Korari's maps, 520–23, 535,  
537–38
- Waitangi Bay, 511
- Waitara, 535
- Waitāwhiri River. *See* Wilberforce River
- Waituna Lagoon (Waiparera inlet), 517
- Waja (flat, round basket), 318, 319
- Waka (canoes, whaling boats), 493, 501,  
513, 530
- Waka (unit of measurement), 496
- Wakarihariha, 516–18 n.92
- Wakarukumoana (Whakarukumoana, Lake  
McGregor), *pl.24*
- Wakatipu (Wakatepa), 514, 516
- Wakea (sky father), 486
- Wakuēnai, Arawakan, 316–17
- Walam Olum (Red Record), 7–8, 82 n.99
- Wales, Prince of, 99, *pl.4*
- Walka (marks), 387–88
- Walkaln-aw (Milkfish Totemic Center), 377  
n.82
- Walker, J. and C., 34
- Walker, John, 96–97, 99 n.162
- Wallis, Samuel, 445, 450
- Walls, 541  
*lukalas* on, 31–32  
on *maquetas*, 279 n.101  
Mesoamerican maps on, 194, 254–55  
(*see also* Murals)  
in southern African agriculturalist engrav-  
ings, 19
- Walruses  
on Chukchi decorated paddle, 347  
on Eurasian Arctic and Subarctic maps,  
349  
on Illigliak's map, 159  
maps engraved on tusks of, 166–67, 176,  
541  
on Teseuke's map, 164
- Walrus sea, 339
- Walsingham, Thomas Lord, 348 n.68
- Wampanoag Indians. *See* Pokanoket Indi-  
ans
- Wampum  
belts, 81, 88–90, 94, 176  
native North American maps on, 51,  
88–90
- Wampumpeage (white beads made from  
shell), 88
- Wānaka. *See* Lake Wanaka
- Wandjina, 390
- Wandjuk Marika. *See* Marika, Wandjuk
- Wanganui, 501, 503
- Wangara, 38, 38 n.67, 39
- Waninga (Wanigi) string crosses, 359
- Wanuk. *See* Lake Wanaka
- Wanukurduparnta, 362
- War. *See also* Battles  
depicted on native North American ani-  
mal hides, 115  
Māori maps relating to, 509, 512–13,  
531 n.125  
Mesoamerican maps related to, 225–29,  
252–53  
cartographic histories and screenfold  
manuscripts, 204, 215  
in Codex Mendoza, 194  
frequency of survival, 196  
native North American maps associated  
with, 117, 172, 180, *pl.6*  
by Gero-Schunu-Wy-Ha, 132–33, 134,  
180  
Nootka map, 112, 113, 180  
preparation for, 69
- Warao people, 301  
cosmology, 309–13, 315, 317  
ecological and mythological criteria used  
by, 308, 313
- War Department, 124
- Ware Korari, Te. *See* Te Ware Korari
- Wareyang, 470
- Warhus, Mark, 56, 57
- Warlpiri people, 365, 408, 539
- Warriors, 235, 238
- Waselkov, Gregory A., 88 n.120, 94, 99  
n.162
- Wash, maps in, 154, 160, 411
- Washauwenega Bay. *See* Shawanaga Inlet

- Washington, George, 68, 105  
 Washoe Indians, 109  
 Wassén, Henry, 291  
 Wassman, Jürg, 435 n.43, 436 n.44  
 Watchtowers, 119  
 Water. *See also* Hydrography; Hydrology; *and specific types of bodies of water*  
 in Achuar system of landmarks, 303  
 in African cartography  
 on Bernus's maps, 39  
 Bozo cosmography, 28  
 Kongo cosmography, 27  
 rock art, 16  
 in Andean cartography  
 associated with pumas, 285, 285 n.129  
 and *ceque* system, 286  
 on maps regarding reed beds, 263–64, 265  
 metaphors for, 299  
 on Nasca pottery, 278  
 Nazca geoglyphs and, 276, 277  
 at Old Temple at Chavín de Huántar, 272 n.57  
 on Santa Cruz Pachacuti's drawing, 297  
 in Taypikala, 280  
 at Tiwanaku, 283  
 in Australian Aboriginal cartography, 389, 407  
 on map of Angas Downs cattle station, 408  
 on map of day's hunt, 393  
 on map of Gumadir River, 399  
 on map of Lake Polgu and Milgari Creek, 392  
 on map of Margulidjban and environs, 395, 397, 400, 401  
 paintings, 367  
 on Eurasian Arctic and Subarctic Khant signs, 343  
 in Melanesian cosmography, 431, 431 n.32  
 in Mesoamerican cartography  
 cosmography, 229, 235, 255  
 Mapa de Sigüenza, 219  
 map of Amoltepec, 214  
 map of Apoala Valley, 216  
 pictographs for, 200, 200 n.54  
 in native North American cartography, 82, 142 n.280  
 Watercolor, maps in, 409, 410  
 Māori, 499, 515, 533  
 native North American, 115, 118, 120, 121, 138  
 Waterfalls. *See also* Falls  
 on map of Apoala Valley, 216  
 in South American and Caribbean cartography, 303  
 in terrestrial hexagon, 306  
 on wampum maps, 89  
 Water holes, 128–29  
 Water-lily pads, 200 n.54  
 Waterman, T. T., 118, 181  
 Water rights, Andean, 258–59, 262  
 Watersheds, 65, 179  
 Water sprites, 108–9  
 Watson, Helen, 364, 364 n.47  
 Watun ("shooting" constellation), 112  
 Waves, 185, 234. *See also* Swells, ocean  
 Wayfinding, 187  
 Waymarkers. *See* Toas  
 We, *the Navigators* (David Lewis), 455  
 Weagamow Lake Ojibwa Indians. *See* Ojibwa Indians  
 Weapons. *See also specific weapons*  
 Australian Aboriginal paintings on, 354–55, 357  
 on Chukchi decorated paddle, 347  
 maps on, 541  
 on Sayhuite Stone, 288  
 Weather, 287, 288, 299  
 Weber, Max, 442  
 Weirs, 343  
 Wellington, 501  
 Wellman, Klaus, 57, 61  
 Wells  
 on Australian Aboriginal paintings, 367, 377, 378, 379  
 on Bozo cosmographical map, 28  
 on maps of Tuareg grazing areas, 38, 40  
*Wenua* (land, country), 494–95  
 Wernerian Society, 166, 166 n.327  
 Werowocomoco, 70, 72  
 Wessell Islands, 371, 372  
 West  
 on Bernus's maps, 40  
 in Mesoamerican cosmography, 203  
 in Codex Fejérváry-Mayer, 230, 231  
 in Codex Madrid, 233  
 in Navajo sandpainting, 110  
 Westall, William, 355  
 Westen, Thomas von, 336  
 Western Desert, Australia, 379–84, 388–89, 539  
 Western Muskogean languages, 99 n.166  
 Western Sioux Indians. *See* Lakota Sioux Indians; Sioux Indians  
 West Fayu, 471, 472  
 West Polynesia, 419  
 West Siberian Plain, 330 n.5, 342  
 West Wood Cree Indians. *See* Cree Indians  
 Wetalltok, 155, 164, 165  
 Wetherill, Louisa Wade, 110  
 Weule, Karl, 37  
 Whakamātau. *See* Lake Coleridge  
 Whakarewa. *See* Lake Browning  
 Whakāri. *See* White Island  
 Whakāriki, 524  
 Whakarukumoana. *See* Wakarukumoana  
 Whales, 162  
 in Carolinian navigation, 466  
 on Chukchi decorated paddle, 347  
 on Eurasian Arctic and Subarctic canoe benches, 346  
 on Eurasian Arctic and Subarctic maps, 349  
 on Illigliak's map, 159  
 Whale sea, 339  
 Whaling, 329, 348  
 Whaling stations, 531 n.125, 534  
 Whangaroa Harbor. *See* Port Hutt  
*Whare* (houses), 493, 505, 513, 520, 531 n.125  
*Whare* (unit of measurement), 496  
 Whare Kauri. *See* Chatham Islands  
 Wheeler, George M., 113  
 Wheels, medicine, 54, 63 n.46  
*Whenua*, 494–95  
 Whipple, Amiel Weeks, 106 n.183, 177, 177 n.360  
 Whistles, 282  
 White, John, 498 n.25, 500, 501, 501 n.39  
 White Bird, 53  
 White-Eyes, 88, 88 n.120  
 Whitehead, Neil, 5, 540  
 White Island, 162  
 White Island (Whakāri), 501, 501 n.41  
 White Mesa, 64  
 White River, 119, 122  
 Whites, in cosmology, 317, 319  
 Whitianga, 500  
 Wichita Indians, 173, 174  
 Wigund, 88  
 Wikaiyai (San Bernardino Mountain, San Gorgonio Peak), 112  
*Wikhegan* (maps incorporating recent events and immediate intentions), 86 n.116, 173  
 Wik region, 377  
 Wikusko Lake, 154  
 Wilberforce (Waitāwhiri) River, 524, 525  
 Wilbert, Johannes, 312–13  
 Wild Honey (Australian Aborigine ancestral being), 376  
 Wild rice, 80  
 Williams, Denis, 309 n.23  
 Williams, Herbert William, 494–95  
 Williams, Nancy M., 401–3, 406, *pl.21*  
 Williamson, James, 525  
 Winchenem ceremonial group, 377, 377 n.81, 378  
 Windigo, 149, 151, 154, 155, 177  
 Windows, 295, 316  
 Wind roses  
 from Cook Islands, 465  
 Polynesian, 458–59  
 on Tigrean maps, 29, 29 n.32  
 Winds  
 and *etak*, 474–75  
 gourds used to symbolize, 459, 487 n.111  
 in Indonesian navigation, 488  
 and Marshallese sailing, 476  
 during modern canoe voyage, 461 n.51  
 and Oceanic mental navigation, 443  
 in Oglala Sioux cosmography, 53  
 and Polynesian navigation, 450–51, 451 n.27  
 on Tahitian compasses, 497  
 Winkler, Captain [Otto?], 476–79, 479 n.94, 480–82  
 Wiremu Kingi Rangitakei, 525, 528  
 Wisconsin, 79, 79 n.91  
 Wisconsin glaciation, 146  
 Wisconsin River, 81  
 Wise Solar Elder Brother, 273  
 Wissman, Hermann von, 36  
 Witsen, Nicolaas, 330, 340–41, 342  
*Wofālu* (star courses), 466

- Wogeo Island, 440
- Woleai Atoll, 454 n.36, 467 n.69  
measurement systems, 465  
star compass from, 463, 464  
star courses from, 466
- Wolf, Aggan, 138–39
- Wolf, Ludwig, 36
- Woliagwi Mountain, *pl.23*
- Wolverines, 342
- Women. *See also* Gender  
Amazon, 324  
Australian Aboriginal art by, 389, 392, 393  
on Australian Aboriginal maps, 393  
and birchbark message maps, 342–43  
n.51  
and design biting, 142  
Māori, 518 n.92  
and Mesoamerican map production, 197  
Murik, 440 n.48  
and Oceanic navigation, 455  
in *Pankalangu Ceremonies at Yamunturanga*, *pl.19*  
and southern African agriculturalist engravings, 22  
and Warlpiri “sand stories,” 408  
Yupno, 436 n.44
- Wood  
as Australian Aboriginal art medium, 355, 357–58, 359, 366, 370, 385  
boards, maps on, 330, 340–42, 343, 541  
carvings, 31, 531, 531 n.126  
Eurasian Arctic and Subarctic maps on, 340–44, 345, 346, 348  
in *lukasa* memory boards, *pl.2*  
Māori maps on, 531  
native North American maps on, 166–68, 169  
stakes, geoglyphs and, 275, 275 n.77  
tools made of, 65
- Wood, Denis, 2 n.3
- Woodworking, 301
- Woodworth, W. McM., 490, 492
- Wopkaimin people, 429, 430
- Words. *See also* Text  
Māori, 494–95  
native North American, 52–53  
and South American and Caribbean cartography, 303  
transmission of information through, 322
- Worhanimóós, 470
- Worhánkayúsómw, 470
- Worhayiniyarhúrhan, 470
- World, pontifical, 295, 297, 299
- World disks. *See* Disks, earth
- World Resources Institute, 540
- World sea, 310
- World trees, 187, 229, 234  
in Codex Borgia, 232 n.132  
in Codex Fejérváry-Mayer, 230, 231, 253  
in Codex Madrid, 233  
in Eurasian Arctic and Subarctic cosmography, 333, 334, 334  
on Lord Pacal’s sarcophagus lid, 234–35, 237  
on Maya plate, 233  
on Olmec cosmogram, 234  
on stela at Izapa, 185, 234, 255  
on Tizoc stone, 238
- World Wildlife Fund, 540
- Wor *n’su* (tunnel system), 435
- Wotho Island, 480, 484
- Wotje Atoll, 453
- Wright, Robin, 319, 320
- Writing  
Inka lack of, 258 n.8  
Mesoamerican, 183, 185, 198–200, 201, 209
- Writing Rock, North Dakota, 63 n.46
- Written maps, Melanesian, 435–38, 439, 440, 441
- Wuben, 377, 377 n.82
- Wukari, 40
- Wuriang, 470 n.74
- Wurrawurraoi, 412
- Wuthelpal, 379 n.87
- Wyandot Indians, 89
- Wyman, Leland, 110
- Xaltocan (Place of the Spiders in the Sand), 221
- Xatea (Pleiades), 112
- Xavante peoples, 311
- Xawitai (grass snake or blue garter snake) (constellation), 112
- Xibalba (Underworld), 235, 237, 237 n.148
- Xicalango, 228, 228 n.123
- Xilkaïr (red racer snake) (constellation), 112
- Xilotepec, 199, 201
- Xilotl (maize), 199, 201
- Xiuhtecuhli (Fire Lord), 232, 234
- Xochimilco, 225, 226, 252–53
- Xolotl, 205 n.67, 207, 208, 218, 220, 249, 539–40, *pl.9*. *See also* Codex Xolotl
- Xolotl (monstrous canine), 239–40
- Xonecuilli (Staff) (constellation), 239
- Yahi Indians, 115, 118, 172, 172 n.351
- Yahui *coo maa* (Deep Cave of the Serpent), 215
- Yajé trance, 307
- Yakurrukaji, 362
- Yakuts, 333, 345
- Yakutsk Museum, 333
- Yalangbara, 413, 414
- Yamparliniyi, 362
- Yana Indians, 115
- Yanktonai Indians, 58, 127 n.241
- Yankton Indians, 58
- Yap. *See* Uap
- Yapu (hill), 389
- Yarangas, 347
- Yarapat, 436–38, 440, 441
- Yarisque, 295 n.180
- Yarn, 290, 290 n.162
- Yavapai Indians, 108, 113
- Yayé, 310
- Yayua, 323
- Yazoo River, 101
- Years  
in Mesoamerican cosmography, 203, 231, 232, 232  
on Mesoamerican maps  
in Codex Boturini, 218, 221  
of Tenochtitlan, 193, 194, 236
- Year signs, 231
- Yebá, 307–8 n.18, 310, 311, 312
- Ye’cuanas  
basketry, 318, 319  
cosmology, 311, 316  
and Western forms of cartography, 321–22
- Yee Hecaya, 236
- Yellowknife Indians, 143
- Yellowstone Lake, 114
- Yellowstone Park, 114
- Yellowstone River, 114, 124
- Yembii (path), 426
- Yirritja moiety, 376
- Ylhuicatl Huix Tutla, 236
- Ylhuicatl Mamaluacoca, 236
- Ylhuicatl Tlalocaypanmeztlī, 236
- Ylhuicatl Tunatihu, 236
- Ylhuicatl Tztlalicoe, 236
- Ylhuicatl Xoxouhca (Green Sky), 236
- Ylhuicatl Yayaueha (Green and Black Sky), 236
- Yolngu people  
design elements of paintings, 364  
maps by, 401–3, 404, 405, 406, 407, *pl.21*  
and secrecy, 371–73
- Yon (gardens), 430
- Yoneda, Keiko, 191, 221–22 n.104
- York Factory Indians, 146, 147
- Yoruba, 7, 27–28, 28 n.21
- Young, Thomas, 478
- Youri, 35
- Yu, Emperor, 63 n.46
- Yucatan Peninsula  
maps from, 196, 210 (*see also* Maní, map of)  
Maya spoken boundary map in, 220 n.101  
place-names on correlated with map of Maní, 210  
rarity of *lienzos* in, 195 n.37
- Yucatec Maya, 185
- Yucca leaves, 65
- Yuchi Indians, 103
- Yucu (hill), 199–200
- Yucu *nama* (Hill of the Soap Plant). *See* Amoltepec
- Yucu *satuta* (Hill of Seven Waters). *See* Zacatepec
- Yuendumu, 362
- Yukagirs, 340, 342, 348
- Yukon Territory  
map of Kohklux’s route in, 115, 116–17, 180  
survey maps of, 152
- Yulyupunyu, 362
- Yuman (Quechuan) Indians, 106 n.183, 108 n.189, 177, 177 n.360, 178
- Yungas zone, 278

- Yupanas* (abacal maize tablets), 291, 291  
     n.165, 293, 297  
 Yupno people, 435–36, 437, 438, 439  
 Yupno River, 435, 436  
 Yurok Indians, 53, 181  
 Yurts, 345  
*Yuta ndua nama* (River of the Barranca of  
     the Soap Plant), 215  
*Yuta tmuhu* (River of the Lineages), 215  
 Yves d'Évreux, 320  
 Yzmictlan Apochcaloca, 236  
 Yztapal Nanazcaya (Sky of the Roses), 236  
 Yztepetl (the Mountains of the Knives),  
     236  
  
 Zacatepec 1, Lienzo of, 196, 201, 202–3,  
     207–8, 208 n.72, 209, 213, 241,  
     248–49  
 Zacatepec 2, Lienzo of, 213, 248–49  
  
 Zacatlan, 208  
 Zagwe kings, 30  
 Zaire. *See* Democratic Republic of Congo  
 Zalavruga II, 331, 332  
 Zambezi River, 35  
 Zantwijk, R. A. M. van, 191, 193 n.33  
 Zapotecs, 183, 187, 187 n.13  
     and circumambulation, 220  
     and cloth maps, 195  
     and hieroglyphs, 199  
     language, 187, 187 n.13  
 Zaria, 35  
 Zeilik, Michael, 65  
 Zenith  
     gods of, 315  
     in native North American cosmography,  
         53  
     “Zenith star” navigational method, 460,  
         460 n.48  
  
 Zigzags, 340  
 Zimbabwe, 16–17, 18  
 Zodiac, 29, 237 n.150  
 Zolipa, Veracruz, 243, 244  
 Zones, life, 259–60, 262, 267, 297  
 Zoomorphs, 62, 62 n.45, 64  
 Zorita, Alonso de, 187  
*Zoyatl* (palm), 246  
 Zuidema, R. Tom  
     on Bennett Stela, 282  
     on *ceque* system, 287  
     on Inka use of puma image, 285  
     on *khipus*, 291  
     on Nasca pottery, 277  
     on *tocapu* designs, 294  
 Zuni Indians, 108, 172  
*Zverinye znaki* (beast signs), 342