

INDEX.*

- Abalone, 337, 338, 396, 398, 401; pendants, 144; shell, 143, 144, 145, 163.
- Abbott, Ch. A., cited, 82, 84.
- Abbott, Charles C., cited, 6, 10, 19, 35, 42, 52, 53, 55, 59, 63, 64, 65, 66.
- Aboriginal American Basketry, cited, 145.
- Aboriginal names, 254.
- Aborigines, California, 401.
- Acmea patina*, 338, 376, 398.
- Actinolite, 389.
- Adolescents, Ellis Landing Shell-mound, scarcity of,
- Aesculus californica*, 319, 324.
- Aesthetic attainments of Ellis Landing Shellmound peoples, 397.
- Agate, 60.
- Age, of the Emeryville Mound, 30, 32-35; of shellmounds, 345.
- Agelaius phoeniceus*, 143, 144.
- Agriculture, 323.
- Alameda, 5, 10, 327, 331, 337, 347; creek, 315, 316, 322.
- Alaska, 395.
- Aleutian Islands, 10, 11, 20, 55, 68, 332, 336, 371; shellmounds, 35, 346.
- Allegheny Mountains, 18.
- Alphabet, 266.
- Alluvial deposits, 12; formation at Ellis Landing Shellmound, 362.
- Altamaha River, Florida, 10.
- America, middle, 347.
- American Naturalist, cited, 10, 14, 42.
- Amygdules, chalcedonic, 380.
- Anas boschas*, 142, 144.
- Anchylosed elbow joint, 384.
- Angel Island, 376.
- Animal bones, 401; at Ellis Landing, 378; in Emeryville mound, 18; in San Francisco Bay shell-mounds, 339.
- Animal names, 255, 256, 265.
- Animal names, in basket designs, 255.
- Animate objects, 251, 252, 255.
- Antelope, 321, 278.
- Anthropological Institute, Journal cited, 6, 54.
- Anthropologische Gesellschaft, Wien, Mitteilungen cited, 81.
- Anthropology, Department of, University of California, 135, 311, 358, 359.
- Antilocapra americana*, 321, 378.
- Antler, 80, 98.
- Arctic, 79.
- Arctostaphylos*, 319.
- Argillite, implements of, 32.
- Arrangement, design (or pattern) in baskets, 264; banded, 170, 180, 191, 195, 250, 264; crossing, 169; 170, 250; diagonal, 169, 170, 177, 180, 193, 208, 246; diagonal zigzag, 169; horizontal, 169, 170, 180, 191, 193, 195, 208, 250, 264; individual, 169, 170, 264; spiral, 169, 170, 177, 193, 250; vertical, 169, 170, 208, 264; zigzag, 200.
- Arrowheads, 62.
- Arrowpoints, 341, 389, 390.
- Art in Shell, cited, 25.
- Artifacts, 3, 6, 9, 19, 20, 24, 42, 106, 358, 369, 370, 384, 385, 401.
- Artificial objects, 251, 252, 256, 265.
- Aryan, 342.
- Asclepias mexicana*, 320.
- Ash, 9, 335, 375, 379, 401.
- Asphaltum, 29, 54, 66, 75, 394, 396.
- Athapascans, 136, 158.
- Atlantic coast, 35, 42, 337; states, 332, 335.
- Auerhahn, the, 32.
- Auk, 18, 32.

* Univ. Calif. Publ. Am. Arch. Ethn., Vol. 7.

Index.

- Australia, 332, 334.
Awls, 392; bone, 341; common, 67.
Awl-like implements, 66, 71; blunt, 68; flat, 69.
Ayala, Commander, 317, 347, 376.
Aythya vallisneria, 339.
Baccharis douglasii, 369.
Badger, 339, 378.
Bald Hill, 124, 125, 126, 129.
Bancroft, H. H., cited, 5, 6, 53, 59, 68.
Bars, 369.
Basket Designs of the Indians of Northern California, cited, 135.
Basketry, Aboriginal American, cited, 145.
Basketry, ceremonial, 136; coiled 153, 158, 162, 170; in California, 134; practiced by shellmound people, 340; practices connected with, 171-2; twined, 144, 170; uses of, 135.
Baskets, baby-carrying, 146, 166, 296; boat-shaped, 167, 191, 264; burden, 136, 146, 147, 153, 154, 162, 166, 170, 192; ceremonial, 164, 165; coiled, 144, 240; conical, 153, 167, 264; cooking, 246; cradle, 146, 166, 168; culinary, 167; cylindrical, 163, 167, 170; elliptical, 167, 264; feathered, 168; fish, 167 (*see traps*); globose, 152, 197, 246; grinding, 163; hemispherical, 136, 146, 156, 167; material for, 136-145; "Moon," 143; milling, 140; mortar, 140, 153, 163, 168, 192, 294; openwork, 136, 146, 147, 148, 149, 153, 154, 155, 158, 164, 167, 168; pan, 163; parching, 146, 163; plain-twined, 149; plaque, 163; plate-form, 136, 146, 152, 153, 167, 225, 246, 264; sifter, 140, 146, 147, 148, 153, 154, 163, 167; sifting, 136; spherical, 167, 170, 264; storage, 146, 164, 165, 167, 168, 246, 300; tightly woven, 147; trap, 136, 147, 302, 304; truncated cone, 167; twined, 149, 193, 246; winnowing, 146; with foot or pedestal, 164.
Baskets, materials for, *see Materials*.
Bavaria, 78.
Bay tree, 319.
Bead handles, 144.
Beads, 25, 398; of bird bones, 27; clam-shell, 144; magnesite, 143, 144, 145; shell, 27, 28, 136, 143, 144, 145, 264, 341; Olivella shell, 383; used for ornamentation, 136, 264.
Bear, 18, 339.
Beaver, 18, 339.
Becker, George F., cited, 113, 117, 131.
Berkeley, 329; Berkeley Hills, 360, 361, 363; West, 5, 10, 19, 337.
Berlin, Museum für Völkerkunde, 135.
Bibliography of papers on the occurrence of early man in the auriferous gravels of California, 131.
Bird bones, 27, 339; bird names, 256.
Blackberry, 320.
Blackbird, red-winged, 143, 144.
Blake, William P., 131.
Bluebird, 143, 144.
Boats of shellmound peoples, 376, 377, 402.
Bodega Bay, 331.
Bodkins, 393.
Bone, arrow blades, 41; awls, 341; blades, 393; implements, 25, 66, 96, 98, 100; rings, 25, 29; splinters, 40; tools, 402.
Bones, animal, 18, 339, 378, 401; barbed, 394; bird, 27, 339; fork-like, 394; human, isolated, 383; mammalian, 339; notched, 393; saw-like, 76; tubular, 80; of vertebrates in San Francisco Bay shellmounds, 18.
Boone, J. I., 127.
Boorman, Mr., 362, 363.
Border, of baskets, bound with hoop, 148; braided and twined warp, 155, 156; simple turned down warp, 157; twined bundle warp, 156; warp-turned down, 148.
Border finishes, 145, 148, 152-157, 160, 192, 308.
Boston Natural History Society, museum of, 114.
Boston tunnel, 114.
Boulders, 9.
Boyce, H. H., 122.
Braeken, 139, 141.
Bradford Island, 356.
Braiding, three-strand, 147, 159.
Brandenburg, 66.
Brant, 143.

Index.

- Branta canadensis*, 143, 145.
 Brazil, 10, 42, 332, 334.
 Brick, 347.
 Brinton, D. G., 11, 14, 21, 35.
 British Columbia, 65.
 British Isles, 333.
 British Museum, London, 327.
 Bromley, R. I., 118.
 Brooks Island, 5, 330, 354, 360, 364, 366, 376, 380.
 Buckeye, 319, 324.
 Bulrush, 137, 140, 159.
 Burial, 21-25, 27-30; group, 343, 383, 394; intrusive, 383; methods of, 382.
 Cahuilla Indians, Ethnography of, cited, 162.
 Calaveras skull, the, 110, 123, 131.
 California, central, 310; middle, 342, 344, 387, 402; northern, 6, 141; northwestern, 152, 265, 392; south central, 141; southern, 10, 21, 25, 34, 332, 391, 392, 396, 397.
 California, basketry in, 134; climate of, 318; Ethnological and Archaeological Survey of, 134; graves in southern, 26; aborigines, 401; Indians, 26, 36, 38, 53, 134, 397.
 California Promotion Committee, 317, 377.
Canis familiaris, 18, 339, 376.
Canis sp., 18, 339, 378.
 Cañizares, José de, 317, 321, 347, 376, 387.
 Cannibalism, 19.
 Cardinal directions, 382.
Cardium corbis, 16, 338, 376.
Carex barbarae, 137, 140, 264.
 Caribs, 26.
 Carnivores, 378.
 Carquinez Strait, 313, 315, 321, 328, 329, 331, 347, 364, 376, 382, 387.
 Carr, Jeanne, 70.
Castor canadensis, 18, 339.
Cerasus, 319.
Cercis occidentalis, 138, 140.
 Ceremonial objects, 341.
Cerithidea californica, 16, 338, 376.
 Cerrito, 361.
 Cervical vertebrae, fused, 384.
Cervus canadensis, 18, 339.
Cervus sp., 18, 339, 378.
 Cetaceans, 321, 378.
 Chalcedonic amygdules, 380.
 Chalcedony, 60.
 Charcoal, 9, 19, 24, 26, 27, 335, 336, 375, 379.
 Charm stones, 341, 384, 388, 399.
 Chert, 60, 61, 380, 390; flaked, 94; flakes, 340.
 Chesnut, V. K., cited, 320.
 Children, 344.
 Chili, 332.
 Chinese Camp, 354.
 Chipped flint, 340; stones, 61; tools, 41.
 Chisel-like tools, 65.
 Chisels, 80.
Chlorogalum pomeridianum, 320.
 Clam, 321, 375, 401.
 hard-shelled, 337, 338.
 soft-shelled, 337, 338.
 Clam-shell, 163; beads, 144.
 Clay stratum in Emeryville mound, 10.
 Clay Hill skeleton, 122.
 Clear Lake, 137, 140, 165, 211, 380.
 Cliff-dweller ruins, 2.
 Cliffs in vicinity of Ellis Landing, 364.
 Climate, of California, 318.
 Coast line, 265.
 Coast Range, 262, 312, 319.
 Cockle, 337, 338, 401; cockleshell, 30.
 Coiling, in basketry, 158-162, 170, 264; direction of, 161; fibers used in, 136; foundations of: multiple rod, 159; rod and welt, 158; single-rod, 144, 158, 160, 161, 170, 264; splint, 159; three-rod, 144, 158, 160, 161, 164, 170, 210, 264; two-rod, 158, 264.
 Coils, sewing of, 160; wrapping of, 160.
Colaptes cafer, 145.
 Coleman, T., 36.
 Color, qualifying terms of, 265, 257, 258.
 Columbia, gravels at, 112.
 Columbia River, 332.
 Colusa County, 36.
 Compositae, 320.
 Concord, 314.
 Contributions to North American Ethnology, cited, 6, 17, 48.
 Cook, cited, 32.
 Cooper, J. G., 126.
 Cordelia, 314.
 Cormorant, 18, 339.
 Corte Madera, 328.
Corylus californica, 319.
Corylus rostrata var. *californica*, 136, 141.
 Coyote, 378; culture hero, 171.

Index.

- Coyote Hills, 317, 330.
 Coyote River, 315, 330.
 Cremation, 22; at Ellis Landing Shellmound, 382.
 Crockett, 347.
 Crowfoot family, 320.
 Cruciferae, 320.
 Culture, of Hupa and Maidu, 263; of shellmound peoples, 340, 401; at Ellis Landing Shellmound, 385, 402; progress in, 340; specialization in, 342; stages of, at Emeryville, 36; variation in, 341.
 Culture affinities, 342.
 Culture hero, Coyote, 171.
 Currant, 320.
 Customs, marriage, 193.
Cyanocitta californica, 143, 144.
 Dakotas, 26.
 Dall, W. H., cited, 6, 7, 10, 11, 17, 20, 35, 60, 332, 338, 346.
 Dancing costume, 54.
 Darwin, 345.
 Dau, in basketry, 171, 193.
 Dead, painted and buried, 402.
 Dead Man Spring, 128.
 Deans, James, 6, 53.
 Death Valley, 318.
 Decoration, feather, 141, 158.
 Deer, 18, 339, 378.
 Delta, at Ellis Landing, 361; material of, 364.
 Denmark, 10, 32, 332, 335, 343, 346, 371.
 Deposition at Ellis Landing, 366, 368.
 Design arrangement, *see* Arrangement.
 Design elements, of basket patterns, 251, 265; table of, 252-4.
 Above, 257, 258; above arrowhead, 181; acorn, 189, 223, 234; acorn-cup, 198; acorn-head, 202; acorn-head (or cup), 204, 216, 226, 227, 229, 230, 252; along, 184, 218, 229; among, 195, 197, 218; and (or with), 182, 188, 189, 195, 205, 206, 207, 208, 216, 231, 232; ant, 183, 194, 195, 197, 202, 252, 255; ants, 177, 193, 194, 195, 197, 199, 200, 201, 202, 218, 222; approximately parallel lines, 210; area, large, 209; arrowhead, 173, 174, 195, 178-9, 180, 181, 183, 184, 186, 187, 188, 189, 190, 191, 201, 204, 205, 207, 208, 214, 215, 217, 218, 221, 222, 223, 224, 228, 229, 232, 235, 236, 253, 254, 258; arrowhead-barbed, 188, 191, 222; arrowheads-barbed, 189, 208; arrowhead-drawn-out, 209; arrowhead-half, 173, 174, 175, 179, 180, 181, 182, 183, 184, 185, 188, 189, 190, 191, 201, 232, 235, 253; arrowhead-half-sharp, 188; arrowhead-large-area, 209; arrowhead-long, 233; arrowhead-projecting, 187, 253; arrowheads, 181, 186, 188, 189, 208, 214, 215, 226, 229, 233, 234; arrowheads-projecting, 203, 215; arrowhead-sharp, 175, 181, 183, 186, 187, 188, 222, 228, 232, 235, 253; arrowheads-sharp, 214, 215, 253; arrowhead-sharp-point, 185; arrowhead-sharp-pointed, 187, 191, 253; arrowhead-slim, 173, 180, 181, 187, 189, 190, 191, 205, 223, 228, 253; arrowhead split open, 176, 253.
 Back, 255; bad, 236; band, 175, 181, 182, 183, 186, 195, 196, 197, 198, 217, 218, 220, 221, 225, 226, 227, 229, 230, 234; barbed, 235, 257; bat, 255; batilmahwak, 234; bat's-arm (or wing), 235, 252; bear, 255; bear-foot (or track), 235, 252; big, 195, 196, 257; black, 185, 257; blank, 185, 186, 206, 217, 235, 258; border finish, 192; bordering, 178; both, 258; both sides, 183; breast (?), 255; broad-band, 175, 186, 195, 196, 203, 204, 205, 206, 220, 225, 231; broad placed or put on, 175; bulged, 257; butterfly, 173, 174, 175, 176, 179, 180, 181, 182, 183, 184, 185, 190, 191, 214, 218, 228, 232, 235, 252, 255; butterfly small, 173.
 Calico, 236, 254; cards, 227, 254; circle, 235, 257; circular, 199, 257; claw (or hand), 255; close, 189, 220, 224; coiled, 258; collect, 234; collected, 182, 188, 218; compressed, 233, 257; connected, 197; crab, 255; crab-hand (or claw), 236, 252; crooked line, 253; cross, 211, 254; crossed, 223, 229; crossing, 177, 182, 189, 190, 199, 202, 207, 208, 214, 219, 221, 224, 227, 228, 230, 233,

Index.

- Design elements (*continued*).
235; crow, 255; crow-foot, 206; crow-foot (or track), 203, 204, 205, 221, 223, 225, 226, 234, 252.
Daylight (‡), 220, 253; deer, 223, 255; deer-back, 176, 177, 183, 184, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 210, 216, 219, 222, 223, 224, 225, 226, 227, 230, 252, 254; deer-breast, 176, 252; deer-breast (‡), 204, 252; deer-elbow, 222, 252, 254; deer-stand-in, 184, 197, 203, 218, 252; deer-teeth, 192, 193, 194, 195, 198, 207, 211, 223, 252; deer-tooth, 192; design, 173, 175, 176, 179, 181, 183, 185, 187, 188, 189, 194, 195, 197, 198, 201, 202, 206, 210, 212, 214, 215, 217, 218, 219, 221, 222, 223, 225, 226, 227, 229, 232, 233, 234, 235, 236, 254; design empty, 179, 180, 181, 184; design from the east, 204; design scattered, 188; design sharp, 188; design, V-shaped, 210; diamond-shaped, 202; door, 253; dot, 229, 253, 254; downward, 176, 189, 257; drawn out, 257.
East, 204, 205, 206, 223, 225, 254; east-place, 223; east-place-from-mark, 253; east-this-mark, 253; edging, 178; elbow, 235, 252, 255; elbow (‡), 233; empty, 179, 182, 183, 188, 189, 201, 214, 217, 218, 225, 227, 232, 233, 234, 253, 254; excrement, 255; eye, 256; eyebrow, 255; eye-half 175, 184, 258.
Far apart, 197; finishing design, 191, 192, 193, 194, 197, 198, 225, 253, 254; following-on-the-outside, 184, 232; follow-up, 229; foolish, 253; foolish (or nonsensical), 236; foot (or track), 255; forehead, 256; forked, 211, 257; from, 223, 254; from (‡), 257.
Gabil (long), 233; gaiya, 181, 214, 215, 231, 232, 234; game, 204, 253, gaik, 236; globular, 229, 257; going around, 205; going around and meeting, 175, 176, 197; goose, 255; goose-excrement, 196, 204, 205, 206, 225, 252, 254; grasshopper, 255; grasshopper-elbow, 215, 216, 217, 222, 229, 252, 254.
Half, 175, 186, 258; head, 256; hitched-together, 197; human being, 254.
Initial design, 193, 211, 212, 253; in-the-center, 181, 214, 218; in-the-middle 181, 182, 184, 185, 186, 189, 190, 196, 198, 205, 206, 207, 208, 214, 215, 216, 217, 218, 220, 225, 226, 227, 229, 230, 231, 232, 233, 234; interlocking, 221, 229; inward, 257, 258; inward-arrowhead, 179, 253.
Killdeer, 255; killdeer-eye-brow, 185, 192, 228, 252.
Large-area, 185, 186, 209, 210, 233, 257; large spots, 174, 192, 194, 195, 196, 197, 198, 199, 227, 228, 253, 254; lead, 205, 206, 215, 217; little-pieces, 212, 229, 234, 253, 254; long, 204, 233, 257; lower, 257, 258; lower-arrowhead, 181.
Man, 254; mark, 175, 184, 186, 188, 197, 198, 204, 205, 206, 207, 211, 218, 219, 222, 223, 225, 226, 233, 234, 235, 236, 254; meet, 189, 190, 224, 228; meet-together, 182; mosquito, 194, 233, 252, 255.
Near, 184, 201; neck, 255; new, 190, 193, 212, 236, 254; new fashioned, 187, 193; new style, 193; nonsensical, 258; nothing, 219, 258.
On, 232; on-both-sides, 181, 182, 184, 186, 188, 195, 197, 201, 207, 215, 218, 226, 228, 232, 234; one, 258; one-on-top-of-another, 198; one (or single), 189, 193, 198, 205; outward, 257, 258; outward-arrowhead, 179, 253; over (or upon), 184.
Parts of the body, 255, 256; passing along, 184, 186, 201, 215, 217, 218, 226, 229, 232, 234; pattern, 210; pine-tree, 174, 176, 252; place, 254; placed-close-together-in-a-row, 176, 179, 181, 218, 222, 225, 232, 233; plume, 255; pointed, 174, 186, 202, 204, 257; potato-forehead, 177, 183, 184, 193, 195, 196, 197, 198, 199, 200, 201, 202, 204, 205, 210, 216, 218, 222, 224, 227, 252, 254; potato-forehead eye, 228, 229,

Index.

- Design elements (*continued*).
252; project, 175; projecting, 181, 182, 188, 257; pushed over, 198, 212, 257.
- Quail, 255; quail plume, 188, 211, 231, 232, 233, 252; quail plumes, 182, 231, 232, 233, 234.
- Resemble, 190; resembling, 258; rib, 255; ring and pin game, 233, 253; rub(†), 176, 220, 222, 258; running along, 184, 230; running-along-in-pairs, 196, 225, 234.
- Scattered, 234, 246; scattered along, 196; scattered-along-in-a-line, 189, 208, 218; scattered-around, 198; scattered-around-in-a-circle, 212; separated, 211; sharp, 185, 187, 188, 203, 206, 225, 257, 258; sharp point, 258; sharp-pointed, 223, 228, 258; sharp points, 173, 176, 181, 183, 186, 187, 189, 190, 203, 205, 206, 214, 215, 216, 223, 225, 226, 228, 229, 236, 258; short, 199, 257; side, 185, 202, 231, 233; single, 258; single (or one), 228; slender, 257, 258; small, 184, 195, 201, 203, 257; small-figures, 220, 228, 253, 254; split open, 257; spot, 173, 253, 254; spotted, 173, 194, 199, 212, 216, 218, 223, 228, 229, 235, 253; spots, 218, 253, 254; stand in, 223; star, 235, 253; starfish, 235, 252, 255; stick up, 175; sticking-through-between-one-another, 229; stir(†), 219, 258; straight-band, 228; stretcher, 176, 202, 205, 207, 219, 226, 234, 253; string, 209, 218, 253; string-in-the-middle, 197; string stripe, 183; stripe, 182, 184, 185, 186, 189, 197, 198, 201, 207, 216, 218, 219, 220; striped, 210; striped-watersnake, 182, 185, 186, 189, 190, 195, 197, 205, 207, 208, 209, 214, 216, 219, 220, 230, 231, 233, 252, 255; stuck-on, 173, 197, 198, 199; sunfish, 255; sunfish-rib, 185, 210, 211, 212, 216, 219, 220, 234, 252; swelled, 199, 257.
- Tattoo, 219, 253; tattooing, 219; tea, 236; teate, 236; teeth, 255; this, 204, 205, 206, 223, 225, 254; three, 216, 258; throw, 258; tied-together, 218; together, 216; top-lying, 207; turtle, 255; turtle-back, 174, 176, 202, 226, 227, 229, 230, 252, 254; turtle-foot, 230, 252; turtle-neck, 174, 175, 176, 177, 186, 190, 226, 227, 229, 230, 235, 252, 254.
- Ugly (or imperfect), 198, 236, 258; upper-arrowhead, 181; upward, 176, 179, 218, 219, 220, 222, 257.
- V-shaped design, 210.
- Water-zigzag, 212; wavy, 213, 233, 253, 254; white, 205, 206, 233, 258; white man's design, 187, 190, 193, 198, 206, 207, 211, 212, 219, 230, 234, 235, 236, 254; wide-mark, 230, 257; wing, 255.
- Zigzag, 175, 181, 182, 185, 186, 189, 200, 204, 205, 206, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 234, 235, 253, 254; zigzag(†), 210; zigzag, compound, 218; zigzag-crossing, 219; zigzag-half, 187; zigzag-projecting, 212, 217, 223; Z-shaped, 224.
- Designs, elemental, 172-236, 237.
- Diamond shaped, 226-230; linear, 206-212; miscellaneous, 234-236; quail plume, 231-234; rectangular, 191-202; rhomboidal, 202-206; triangular, 173-191; zig-zag, 212-226.
- Diabase, 280.
- Dialects, Pomo, 135.
- Digger Indians, 36.
- Digger pine, 138, 140.
- Digging stick, 137.
- Dixon, R. B., cited, 135.
- Dodge, Richard E., 128.
- Dog, 18, 339, 378.
- Drills, 65.
- Ducks, 18, 142, 144, 339, 378.
- Dyer, W. H., 129.
- Ear-rings, 298.
- Earth, 335, 379.
- East Oakland, 5.
- Egyptian hieroglyphics, 347.
- Elderberry, 320.
- Elemental design, 256.
- Elemental designs, *see* Designs.
- Elemental names of basket patterns, 251-258; of: animate objects, 251, 252, 255; artificial objects, 251, 252, 255, 256, 265; birds, 256; miscel-

Index.

- Elemental names (*continued*).
 lanceous, 251, 252; modern, 251, 252; natural objects, 251, 252; plants, 251, 252, 256, 265.
 Qualifying terms of, 256-258; table of, 257-8.
- Elements, geometrical, 265.
- Elk, 18, 32, 339, 378.
- Elk Cañon, 322.
- Elkhorn wedges, 393.
- Ellis, George, acknowledgment of assistance, 265, 285, 287, 298, 359, 400.
- Ellis Landing, 5, 10, 11, 16, 53, 62, 345, 352, 365.
- Ellis Landing Shellmound: age, 245-346, 371, 401; animal bones in, 378; artifacts in, 385-400; canal, 365, 370; composition, 375-380, 401; cremation in, 382; delta at, 361, 364; destruction of, 360, 365, 370; environmental conditions, 360-368; excavation of, 371-374; fauna of, 373; form and size of, 370-371, 401; foundation, 368, 400; homogeneity of, 374; human remains in, 580-585; location of, 358, 360, 369, 400, 402 ff; location of specimens in, 370; map showing location, opp. 404; position of, 366; scarcity of adolescents in, 382; shell species in, 376; size and form of, 370-371, 401; shaft at, 373; slope and contour of, 370; stone ornaments in, 398; structure of, 374-375; subsidence of, 364, 366-367, 400; tides at, 369, 400; volume of, 371; volume excavated, 381.
- Emeryville Shellmound, 1, 5, 376, 378, 393; age of, 30, 32-35; animal bones in (table of), 18; artifacts in, 36-84; base of, 9-12; composition of, 9; constituents of, 16-19; cross-sections of, 90; cultural stages of, 36; cut in, 92; dimensions of, 3, 10; excavation in, 7-9; form and dimensions of, 3, 10; human remains in, 19-30; lateral cut of, 7; location of, 3, 4; map showing, 4; photograph of, opp. 86; shell species in (table of), 16; structure of, 13-16; tides at, 3, 9; topographic map of, 88; tunnel construction at, 7; a vertical cut at, 8.
- Enhydrus lutris*, 18, 339, 378.
- Equus occidentalis*, 112.
- Erosion, 364.
- Eskimo, 55, 76, 395; Point Barrow, 70, 78.
- Ethnic conditions and geography of San Francisco Bay, 311.
- Ethno-geography of the Pomo Indians, 266.
- Ethnography of the Cahuilla Indians, cited, 162.
- Ethnological and Archaeological Survey of California, 134.
- Ethnology, Central California, 342.
- European influence, 347.
- Evans, O. H., cited, 332.
- Excavated shellmounds, 311.
- Excavations, at Ellis Landing Shellmound, 371-374; at Emeryville, 7.
- Fages, 5.
- Fairbanks, Harold W., 359.
- Fair Ranch, 36.
- Fauna, of California, 319, 320; at Ellis Landing Shellmound, 373.
- Feather decoration, 141, 158; materials, 141-145; table of materials, 144-5.
- Feathers, basket material, 141, 142; black, 142, 143; blue, 143; brown, 143; green, 142; lemon yellow, 142; orange, 143; yellow, 143; sunbasket covering, 163; used for ornamentation, 136, 264.
- Feather River, 5.
- Fewkes, J. W., cited, 59, 332.
- Fiber materials, table of, 140-1, 264.
- Fibers, 136, 137.
- Fibers and rods, 136-141.
- Figures, elemental, 256; geometric, 251, 252, 256.
- Finishes, border, 152-157.
- Finishing design, 153.
- Fire, 402.
- Fireplaces, 19, 336.
- Fish, 321, 378.
- Fishhooks, 75.
- Fish-traps, 136, 146, 149, 156, 165; conical, cylindrical, half-cylinder, quail, 167.
- Flicker, redshafted, 145, 171, 172.
- Flint, 390; chipped, 340.
- Flora, 319.
- Florida, 11, 21, 332; Altamaha River, 10.
- Food of shellmound peoples, 340, 402.

Index.

- Forms of baskets, 162-168; table of, 167; boat-shaped, 158, 159, 167; conical, 146, 162, 165, 167; culinary, 167; cylindrical, 164, 165, 167; elliptical, 158, 159, 160, 164, 167; globose, 158; half-cylinder, 165; hemispherical, 146, 158, 162, 163, 166, 167; openwork, 162, 167; plate-form, 167; qualifying terms of, 237, 257, 258, 265; sifter type, 167; spherical, 164, 167; spheroidal, 164; truncated cone, 158, 162.
- Foster, J. W., 6.
- France, 333.
- Franconia, 78.
- Geography and ethnic conditions of San Francisco Bay, 311.
- Geologic features at Ellis Landing Shellmound, 362.
- Geological and geographical conditions of San Francisco Bay, 312.
- Glen Cove, 329.
- Glossary of Pomo basketry terms, 266-276.
- Goddard, P. E., cited, 392.
- Gold Springs, human remains at, 111; calcareous tufas at, 112.
- Golden Gate, 310, 313, 315, 331.
- Golden Gate Park Museum, 327.
- Goose, 18, 339.
- Gooseberry, 320.
- Gopher, 18, 339.
- Gorget, 55.
- Grant ranch, calcareous tufas at, 112.
- Grape, 139, 141, 166; wild, 310.
- Gravel stratum in Emeryville mound, 10; in Ellis Landing mound, 368.
- Graves, Southern California, 26.
- Great Valley, 312, 314, 315.
- Ground water, 400; at Emeryville, 8.
- Group burials, 343.
- Guadalupe River, 315, 322.
- Gulf of Mexico, 6.
- Gulf States, 332, 335.
- Halfmoon Bay, 330, 331.
- Haliotis*, 28, 29, 37, 84.
rufescens, 338, 375.
- Hammer stones, 49, 341, 386.
- Handles, bead, 144; ornamental, 143.
- Hazel, 136, 141, 264, 319.
- Head-band, of burden basket, 166.
- Hearst, Mrs. Phoebe A., 2, 135, 311, 359.
- Helix*, 338, 376.
- Hellwald, 19.
- Hemlock, 319.
- Hetic, Mr., 128.
- Holmes, W. H., cited, 25, 28, 29, 110, 113, 117, 131, 310, 334.
- Holway, R. S., cited, 359.
- Hoops, 140, 141, 153, 163, 166, 192.
- Horse chestnut, 319.
- House pits, 16, 370, 401.
- Household utensils, 341.
- Hrdlicka, A., cited, 131.
- Hubbard, R. D., 121.
- Huchnom, Yukian, 145.
- Huckleberry, 319.
- Human remains, 19, 110, 343, 380.
- Hupa Indians, 81, 152, 263, 392.
- Hupa Reservation, 389.
- Ica River, 35; valley, 36.
- Icterus bullocki*, 143, 144.
- Illinois, 28, 53, 56, 385.
- Implements at Emeryville, 42-64, (table of), 39.
- Implements, 24; argillite, 32; awl, 392; awl-like, 71; blunt, awl-like, 68; bone, 25, 66, 96, 98, 100; flat, 69; knife-like, 40; needle, 392; needle-like, 79; needle-like, stone, 57; obsidian, 62; palaeolithic, 33; pointed, 74; shell, 83; shuttle-shaped, 394; stone, 33, 102, 385, 402; flaked stone, 40; tooth, 83.
- Indian mounds, 5, 6.
- Indian soaproot, 320.
- Indians, California, 26, 36, 38, 53, 134, 397; Coast, 392, 398; Digger, 36; Karok, 38, 152; Klamath, 26, 58, 81; Maidu, 164, 263; Minook, 16; Nishinam, 16; Pomo, 135, 158, 159, 258; Shoshonean, 141; Shuswap, *see* Thuswap; Thlinkites, 56; Thuswap, 65; Wappo, 141; Yukian Wappo, 141; Warrow, 35; Wintun, 36, 38, 141, 163, 164; Yokuts, 30, 141; Yuki, 138, 141, 158, 159, 164, 219; Yukian Huchnom, 145; Yurok, 38, 152.
- Iron oxide, 26.
- Irvington, 316.
- Italy, 332.
- Lacvrens naevius*, 143, 145.
- Jamaica, 26.
- Japan, 332.
- Jasper, 61.
- Jay, California, 143, 144.
- Jersey coast, 11. (*See also* New Jersey.)

Index.

- Jones, P. M., 44, 45, 123, 129.
 Juniper, 139, 140.
 Karok, 38, 152.
 Keel of a basket, 160.
 Kentucky, 68, 69.
 Kern Lake, 6.
 Kincaid Flat, 111.
 King, Clarence, 110, 113.
 King pestle, the, 113.
 Kitchen-midden, 22.
 Kjökkenmöddinger, 14, 32.
 Klamath Indians, 26, 58, 81.
 Knight's Landing, 36.
 Knots, starting, 149-152, 278; twin-
 ing, 159.
 Kolkol, 28.
 Krautle, M. H., 394.
 Kroeber, A. L., cited, 162, 359.
 Labrador, 332.
 Labrets, 341.
 Lagoon, near San Pablo, 366;
 freshwater, 316.
 Lake County, 134.
 Lake Merritt, 5.
 Lakeville, 327, 329.
 Lark, 144.
 Latitude and longitude of San
 Francisco Bay region, 312.
 Laurel, mountain, 319.
 Lawson, A. C., 10, 12, 13, 359.
 Leather cutters, 82.
 Lee, Mr., 128.
 Leguminosae, 320.
Lepus sp., 18, 339.
 Liliaceae, 320.
 Lindgren, cited, 108, 130.
 Linguistic diversity, 261.
 Linguistic stocks in California, 312.
 Looping, lattice, 146.
Lophortyx californicus, 142, 144,
 231.
 Lupus-like mutilation, 28.
Lynx sp., 18, 339, 378.
 McTarnahan, C., 120.
 McTarnahan mortar, 120.
Macoma, 17.
 edulis, 16, 338.
 nasuta, 16, 321, 337, 338, 376.
 Maine, 53, 81, 82.
 Maidu, 164, 263.
 Mammalian bones, 339.
 Mammalian orders, 321.
 Man, arrival of, 358; prehistoric,
 310, 359.
 Manzanita, 319.
 Map showing distribution of San
 Francisco shellmounds, opp.
 348; showing Emeryville Shell-
 mound, 4.
 Mare Island, 347.
 Marriage customs, 193.
 Marsh, at Ellis Landing, 360, 361;
 at Stege, 361; salicornia, 316,
 361.
 Marsh creeks, 365, 370.
 Marshall, J. C., 121.
 Marshall mine, 121.
 Martinez, 314.
 Mason, Otis T., cited, 81, 145, 160.
 Massachusetts, 53, 55, 59, 77, 82.
 Material Culture at Ellis Landing
 Shellmound, 385, 402.
 Materials, basket, 136-145; beads,
 136; bracken, 139; bulrush,
 137, 140; Digger pine, 138,
 140; feather, 136, 141-145;
 fibers and rods, 136-141; grape,
 139; hazel, 136; hoop, willow,
 140, 141; juniper, 139, 140;
 redbud, 138, 140; sedge, 137;
 shell, 136, 141-145; tule, 140;
 willow, 136, 138, 140, 141;
 table of, 140-141.
 Mattison, Mr., 123, 129.
 Mayfield, 327.
 Meadow lark, 143.
Melanerpes formicivorus, 142, 144.
 Mendocino County Indians, 134,
 320.
Mephitis occidentalis, 339, 378.
 Meredith, 60, 75, 76.
 Merriam, C. H., cited, 348.
 Merriam John C., 2, 3, 7, 129, 310,
 311, 359, 375.
Merula migratoria, 143, 145.
 Metz, C. L., 70.
 Mexico, 60; Gulf of, 6; Indians of,
 35.
 Mica, 24, 25, 27, 399.
 Milkweed, 320; string, 144.
 Mill Valley, 322, 350.
 Minook Indians, *see* Miwok.
 Mississippi Valley, mounds of, 2.
 Miwok Indians, 16, 162.
 Moccasin-needles, 66.
Modiola sp., 338.
 Molera, E. J., 317, 376.
 Mollusca, species of, in Emeryville
 mound, 16; in San Francisco
 Bay shellmounds, 338.
 Molluscan remains, 337.
 Molluscs, 321.
 Moore, Clarence B., cited, 332.
 Moorehead, Warren K., cited, 6, 25,
 52, 54, 56, 59, 61, 62, 65, 66,
 68, 69, 70, 74, 75, 77, 81, 310,
 386, 387, 388, 391, 393, 400.
 Moquelumnan stock, 141.

Index.

- Morse, E. S., cited, 332.
Mortars, 42-47, 294, 341, 384, 385, 386.
Mortuary chamber, in a cave above Cave City (figured, plate 14), opp. 126.
Mortuary customs, 343.
Mount Hamilton Range, 313, 314, 360.
Mount St. Helena, 63.
Mount Shasta, 63.
Mount Tamalpais, 313.
Movement, geological, 400.
Mummies, Peru, 26.
Museum, Boston Natural History Society, 114; Department of Anthropology, University of California, 135; für Völkerkunde, Berlin, 135; of Science and Art, University of Pennsylvania, 55, 57.
Nadillac, Marquis de, cited, 7, 19, 59, 325.
Names of basket designs, aboriginal, 254; animal, 255, 256, 265; elemental, *see* Elemental names; modern, 251, 252; religious significance of, 256, 265.
Napa, 55, 59, 312; Indians, 77; river, 322; valley, 63.
Neale, J. H., discoveries, 117.
Necklaces, 27.
Needle-like implements, 70.
Needles, 392.
Nelson, E. W., cited, 75.
Nelson, N. C., 309, 357; cited, 394.
Neocene Man, Recent Investigations bearing on the Question of the Occurrence of, in the Auriferous Gravel Beds of the Sierra Nevada, 107.
Nets, 387.
New England, 18, 42, 68, 70.
New Jersey, 32, 59, 63.
New York, 68.
Niblack, 56.
Niles, 316.
Nishinam Indians, 16.
North America, 334, 342.
Northwestern peoples, territory of, 263.
Nova Scotia, 6.
Oak, live, 319; valley, 319.
Oakland, 316; East, 5; Harbor, 5.
Oakley, Frank T., 364.
Obsidian, 61, 380; blades, 384, 398; implements, 62; occurrence of, 63.
O'Byrns' Ferry, relics found at, 115.
Ochre, red, 384.
Odocoilius, 387.
Ohio, 53, 70; valley, 334.
Olivella biplicata, 28, 29, 30, 338, 376.
Olivella shells, 398; beads, 383.
Oregon, 10, 11, 23, 25, 38, 55, 81.
Oreortyx pictus, 142, 144.
Origin of shellmound peoples, 344.
Orinoco River, 35.
Oriole, 143, 144.
Ornamental handles, 143.
Ornamentation of baskets, 168-251, 265; materials used for, 136, 143, 144, 145, 163, 168.
Design arrangement, 169-172 (*see* Arrangement).
Elemental designs, 172-236 (*see* Designs).
Patterns, 236-251, 265 (*see* Patterns).
Ornaments, 24, 29, 37, 84, 96, 104, 341, 385; bone, 400; shell (in Ellis Landing Shellmound), 397, 402; stone (in Ellis Landing Shellmound), 398.
Ostrea lurida, 16, 337, 338, 376.
Oysters, 16, 17, 337, 338, 375, 376, 401.
Pacific Coast, 310, 312, 332; north, 394.
Pako Island, Bolivia, 55.
Pan (plate-form basket), 163.
Pan's pipe, 394.
Papavraceae, 320.
Patagonia, 345.
Pattern Elements of baskets, 236-251.
Acorns, 242, 243, 244, 249; along, 248; among, 239, 240, 241, 248; and (or with), 241, 244, 245; ants, 239, 240, 241, 248, 249, 250; arrowhead, 242, 245, 248; arrowhead-half, 239, 240, 243, 244, 249; arrowhead-projecting 245; arrowheads, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250; arrowheads-barbed, 241, 244, 245, 246; arrowheads-half-barbed, 244; arrowhead-sharp, 245, 249; arrowhead-sharp-pointed, 242; arrowheads-sharp, 246; arrowheads-sharp-points, 246; arrowhead-slender, 242, 243, 245; arrowheads-slender, 245, 246, 249; arrowheads-small, 245.

Index.

- Pattern elements (*continued*).
Band, 242, 248, 249, 250; banded, 246-7; blank, 241, 248; broad-band, 247; butterfly, 243, 249, 250; butterfly-projecting, 249.
Coiled basket, 243; collected, 238, 242, 244, 247; crossing, 240, 241, 245, 249; crowfoot (or track), 238, 244.
Deer-back, 239, 240, 243, 249, 250; deer-stand-in, 243, 248, 250; deer-teeth, 243; design, 238, 239, 240, 241, 242, 243, 244, 246, 247, 248, 249; dots, 241; downward, 243.
East, 244; empty, 238, 239, 240, 241, 242, 243, 244, 246, 247, 248, 249; extending, 239.
Gaiya, 239, 241, 244, 248, 249, 250; goose - excrement, 239, 242; grasshopper-elbow, 238.
Horizontal, 246-247.
In-the-center, 238, 240, 242, 243, 249; in-the-middle, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 260; interlocking, 243; inward-arrow-head, 241.
Large-area, 238; lead, 239, 242, 243, 249.
Mark, 239, 240, 241, 242, 243, 244, 246, 248; meet-together, 249; mtcá kolai, 238.
Near, 240.
On-both-sides, 239, 240, 243, 244, 246, 248, 250; outward-arrow-head, 241.
Passing-along, 240, 241, 244, 246, 248, 250; placed-close-together-in-a-row, 239, 240, 241, 244, 246, 248; potato-forehead, 240, 250; projecting, 243.
Quail-plumes, 247.
Running along, 240, 242; running-along-in-pairs, 244.
Scattered-along-in-a-line, 241, 245; sharp-points, 242, 244, 248; side, 244; small-figures, 239, 240, 249; spotted, 241, 242, 248; stir (?), 240; straight-lines, 243; string, 242, 244, 248; stripe, 238, 240, 242, 246; striped-watersnake, 241, 242, 244, 245, 247, 249.
Tcadim, 241; teiyau, 244; throw, 239; this, 244; tied-together, 241, 248; triangles, bordering, 245-246.
White, 240, 241, 243, 247.
Zigzag, 238, 239, 240, 241, 242, 243, 244, 245, 246, 248, 249, 250; zigzag-projecting, 249.
Pattern Names, 259-263, 265; qualifying terms of, 259-263; table of qualifying terms, 260-261.
Patterns, 236-257; break, or opening in, 170; belief concerning, 171.
Banded, 246-7.
Bordering triangles, 245-6.
Complex, 178, 265.
Covering the entire surface, 170, 250-1.
Crossing, 244-5.
Diagonal, or spiral, 238.
Horizontal, 246-7.
Miscellaneous, 244.
Triangles, bordering, 245-6.
Triangles with lines, 243-4.
Triangles with rectangles, 239-242, 249-250.
Triangles with rhomboids, 242-3, 247-8.
Triangles with triangles, 243, 248-9.
Triangles with zigzags, 238-9, 250.
Pea family, 320.
Pear-shaped stones, 51.
Pebbles, 19, 335, 375, 379, 401.
Peet, Stephen D., cited, 48, 59.
Pendants, 341, 388, 398; abalone, 144; lanceolate, 399; slender, 399; triangular, 399.
People's Water Company, 362, 363.
Peru, 10, 24, 35, 42, 332; mummies in, 26; Temple of the Moon, 25.
Pestles, 47-49, 163, 341, 384, 385, 386.
Petaluma, 312, 317, 327, 331; creek, 329; slough, 317; valley, 313.
Philadelphia, Academy of Natural Science, 114; Museum of Science and Art, 55; Museum of the University of Pennsylvania, 57.
Phlaeocorax sp., 18, 339.
Phoca sp., 18, 339, 378.
Phocaena communis, 339, 378.
Phrase-names, 261, 265.
Pierce, Llewellyn, 114, 116.
Physiography, 376.
Pile dwellings, Swiss, 75.
Pillar Point, 330.
Pine, digger, 138, 139, 319; yellow, 319.

Index.

- Pinole, 329; Point, 316.
Pinus, ponderosa, 319.
 sabintana, 138, 139, 140, 264, 319.
Pipes, 57, 341, 390, 391.
Pisco Valley, 36.
Plaque, 163.
Plum, 319.
Point Bruno, 6.
Point Isabel, 5, 337, 375.
Point Richmond, 5, 10.
Point San Pedro, 323.
Polished stone, 59.
Pomo Indians, 135, 158, 159, 258.
Poppy family, 320.
Population, 341; of shellmounds, 346.
Porpoise, 18, 339, 378.
Portolá, The March of, 317, 321, 347, 377, 387.
Portuguese ranchers, 323.
Position, qualifying terms of, 257, 258, 265.
Pot fragments on Peruvian shellmounds, 35.
Potrero Hills, 313, 314, 331, 361.
Potrero San Pablo, 354, 360, 363, 376, 378, 380.
Pottery, substitute for, in California, 67.
Powers, S., cited, 16, 36, 37, 44, 57, 59, 62.
Prehistoric man in San Francisco Bay region, 310, 359.
Pueblos, 2.
Puget Sound, 332, 335, 342, 392.
Purpura crispata, 16, 338, 376.
 canaliculata, 16, 338, 376.
Putnam, F. W., cited, 6, 26, 46, 53, 55, 57, 58, 66, 68, 70, 75, 81, 83, 126, 128, 129, 391.
Quail, 142, 144, 231, 256.
Qualifying terms, 237, 254, 256, 257-261, 265; used with elemental names, 257; with patterns, 259; with pattern names, 260.
Qualifying terms in basket design names: above, 257; barbed, 257; big, 257; black, 258; blank, 258; both, 258; bulged, 257; circle, 257; circular, 257; coiled-basket, 258; compressed, 257; downward, 257; drawn out, 257; eye-half, 258; foolish, 258; forked, 257; from (‡), 257; globular, 257; half, 258; imperfect, 258; inward, 257; large area, 257; long, 257; lower, 257; nonsensical, 258; nothing, 258; one, 258; outward, 257; pointed, 257; projecting, 257; pushed-over, 257; resembling, 258; rub (‡), 258; single, 258; sharp, 257; sharp point, 257; sharp pointed, 257; sharp points, 257; short, 257; slender, 257; small, 257; split open, 257; stir (‡), 258; swelled, 257; three, 258; throw, 258; ugly, 258; upward, 257; wide mark, 257.
Qualifying terms used with basket pattern names, 260-1; above, 261; along, 261; among, 261; and (in addition to), 260; and (or with), 261; band, 260, 261; broad-band, 260, 261; close, 261; collect, 260; collected, 260; connected, 260; crossed, 260; crossing, 260; extended, 261; extending, 261; far-apart (‡), 260; following on the outside, 260; follow up, 261; going around, 260; going around and meeting, 260; interlocking, 260; in the center, 260; in the middle, 260; lead, 260, 261; meet, 260; near, 261; on, 260, 261; on both sides, 260; on the outside, 260; one on top of another, 260; passing along, 261; placed close together in a row, 260; running along, 261; running along in pairs, 260; scattered, 260; scattered along, 260; scattered along in a line, 260; scattered around, 260; scattered around in a circle, 260; separated, 260; side, 261; straight band, 261; straight line, 261; stripe, 260; striped, 260, 261; stuck-on, 261; tied together, 260; together, 260; upper, 261.
Quartz, 380, 390; crystals, 25.
Quaternary time, 32.
Quercus agrifolia, 319.
 lobata, 319.
 Wislizenii, 319.
Rabbit, 18, 339.
Raccoon, 18, 339, 378.
Ranke, J., cited, 10, 14, 19, 32, 66, 75, 333.
Ranunculaceae, 320.
Rau, Charles, cited, 25, 47, 52, 53, 55, 59, 61, 63, 66, 68, 69.
Rauch, cited, 82.

Index.

- Reclus, J. J. E., cited, 332, 334.
Redbud, 138, 140, 264.
Redwood, 319.
Rhyolite, 380, 389.
Ribes, 320.
Richmond, 5, 10, 314, 315, 327, 329, 331, 352, 357, 361.
Robin, 143, 145.
Rock, 334, 401.
Rodents, 321.
Rodeo, 328; creek, 315, 328, 329; mound, cavern under, 334.
Rods, 161.
Rods and fibers, 136-141.
Roo, de, P., cited, 325.
Ross Valley, 350 (Plate 32).
Roth, W. E., cited, 332, 334.
Rubus parviflorus, 320.
vitifolius, 320.
Russian River, 331.
Sachos (saws), 77.
Sacramento River, 5, 36, 314, 317, 321, 356.
Salix, 138, 140, 319.
Salmon, 321.
Salt Spring Valley, 127, 128, 129.
Sambucus racemosa, 320.
San Bruno Point, 313, 316, 317.
San Clemente Island, 56.
San Francisco, 312, 377; peninsula, 376; South, 328; temperature of, 318.
San Francisco Bay, 315, 317, 330, 331, 360, 361, 366; climate of, 318; divisions of, 313; Indian settlements on, 5; people north of, 141; subsidence of, 12.
San Francisco Bay Region, early settlements in, 5; ethnic conditions of, 311; geography of, 311; geological and physiological conditions of, 312; map showing distribution of shellmounds in, opp. 348; number of shellmounds in, 322, 357.
San Francisquito Creek, 315, 316, 322, 347.
San Joaquin County, 81.
San Joaquin River, 314, 317, 321, 356.
San José, 312; Mission, 316.
San Leandro Creek, 315.
San Lorenzo Creek, 315.
San Luis Obispo, 6, 25.
San Mateo, 317, 331, 337, 356; creek, 315.
San Miguel, 23.
San Pablo, 6, 19, 325, 363; bay, 310, 313, 315, 317, 329, 361, 362, 364, 365, 366; cañon, 363, 365; creek, 314, 315, 316, 352, 361, 363; strait, 313, 364.
San Pablo-Wildcat delta, 377.
San Rafael, 12, 327, 328.
Sand in Ellis Landing mound, 368.
Sandstone, 380, 389.
Santa Barbara, 6, 38, 52, 56, 57, 391, 398.
Santa Barbara Society of Natural History, 52, 53.
Santa Catalina Island, 46.
Santa Cruz, 6; island, 66; range, 313.
Santa Fe yards at Ellis Landing, 361.
Santa Rosa, 45; island, 29, 30, 44, 66.
Sausalito, 10, 19, 322, 327, 347, 377.
Saxidomus nuttallii, 143, 145.
Saxifrage, 320.
Schist, actinolite, 380; mica, 380, 399; glaucophane, 380.
Schoolcraft, 26, 66, 68.
Schomburgh, R., cited, 35.
Schumacher, Paul, cited, 6, 10, 21, 23, 25, 26, 58, 66.
Scirpus lacustris var. *occidentalis*, 140, 141.
maritimus, 137, 140.
robustus, 141.
Scraper-like tools, 40.
Scrapers, 65.
Scribner, John C., 123, 129.
Sea-lion, 18, 339, 378.
Sea-otter, 18, 339, 378.
Seal, 18, 339, 378.
Seaver's Ranch, 5, 53.
Sedge, 137, 140, 159, 160, 264.
Seed-beater, 136, 157, 166, 167, 296.
Setchell, W. A., 12.
Shaw's Flat, 111.
Shell, abalone, 143, 144, 145, 163; broken, 335; calcined, raw, 336.
Shell beads, 27, 28, 341; clam, 144; Olivella, 383; for ornamentation, 136, 143, 145, 264.
Shell implements, 83; materials, 141-145; ornaments of people of Ellis Landing Shellmound, 397; ring, 28; utensils, 396.
Shells, 9, 16.
Shellmound Park, 3, 7.
Shellmound peoples, boats of, 376; culture of, 340; origin of, 345.

Index.

- Shellmounds, distribution of, 322; geographical distribution of, 330; excavated, 311; of middle California, 6; population of, 346; preservation of, 326; Spanish, 21; typical, 325.
- Shellmounds of the San Francisco Bay region, 309; age of, 30, 32-35, 345-346, 371; artifacts in, 36-84, 340-343, 385-400; burials in, 19-30, 343-344, 380-385; collections from, 327; composition of, 16-19, 335-339, 375, 380; distribution of, 5, 34, 330, 348; excavation in, 7-9, 311, 371-374; form of, 3, 325; map showing distribution of, opp. 348; number of, 34, 322, 358, 401; preservation of, 326; relation to other primitive structures, 333; situation with respect to sea level, etc., 9, 11, 328-330, 364, 400; size of, 10, 325, 371; structure of, 14, 335-337, 374-375.
- Shore line of San Francisco Bay, 312.
- Short, cited, 6, 10.
- Shoshonean tribes, of south central California, 141.
- Showalter, John, 121.
- Shuswap, *see* Thuswap, 65.
- Sialia*, 143, 144.
- Siebe, Captain, 7.
- Sierra Point, 10, 19.
- Sierra Nevada, 162, 263.
- Sifter (basket), 140, 146, 147, 148, 153, 154, 163.
- Silk, 347.
- Silt, 364.
- Sinclair, W. J., cited, 18, 108.
- Sinkers, 50; grooved, 341, 387; perforated, 387.
- Size of Ellis Landing Shellmound, 370-371, 401.
- Size, qualifying terms of, in basket design names, 257, 265.
- Skates, 18, 378.
- Skeletons, 21, 369, 370, 381, 385, 401.
- Skertchley, T. B. J., cited, 131.
- Skunk, 339, 378.
- Slate, 390.
- Smith, H. I., cited, 332, 392.
- Smithsonian Reports, cited, 6, 332.
- Smyrna, 10.
- Snails, land, 338.
- Snares, 136.
- Snell, Dr., collection of, 114.
- Snyder, J. O., cited, 321.
- Sonoma County, 134; creek, 322; valley, 313.
- South America, 75, 334.
- South Carolina, 26.
- South San Francisco, 328.
- Southall, J. C., cited, 325, 347.
- Southern California, 332.
- Spain, 333.
- Spanish explorers, 313.
- Spanish Flat, 55.
- Spearheads, 62.
- Spear points, 341, 389.
- Specimens collected at Ellis Landing, 358.
- Spermophilus* sp., 18, 339.
- Spinning, 53.
- Splints, 152.
- Sporadic types of tools, 41.
- Springfield, gravels at, 112.
- Spruce, Douglas, 319.
- Squirrel, 18, 339.
- Standard Oil Company, 327, 362.
- Standella*, 16, 338.
- Stanford University, 327.
- Starting knots, 149-152, 278.
- Steatite, 389, 390.
- Steenstrup, K. J. V., cited, 332.
- Stege, 5, 361, 365.
- Stephens, F., cited, 321.
- Stevenson, 48.
- Stickle, George, of Angels, 127, 129.
- Sting-rays, 378.
- Stockton, 60; channel, 74.
- Stone Age, the, 31.
- Stone implements, 102, 401; needle-like, 57.
- Stone ornaments in Ellis Landing Shellmound, 398.
- Stones, 375, 379; chipped, 61; circular, 399; cylindrical, 56, 390; flat, 46; flat pointed, 50; grinding, 163; hammer, 341, 386; hammer-like, 49; pear-shaped, 51; polished, 59; rubbing (whetstones), 386.
- Stratification of Emeryville mound, 14, 15.
- Structure, of Ellis Landing Shellmound, 374; of Emeryville mound, 14; of the mounds, 335.
- Sturnella magna*, 143, 144.
- Subsidence, 11, 358, 364.
- Suisun Bay, 5, 310, 314, 356; basin, 314.
- Sun-basket, 142.
- Sunflower family, 320.
- Suppuration, 384.
- Switzerland, 79, 82.

Index.

- Table Mountain Drift Mines, 114.
Tamalpais, 313.
Tapes, 396.
 staminea, 16, 338, 376.
 tenerrima, 338.
Taxidea sp., 339, 378.
Technique of basketry, 145-162, 264; coiling, 158-162, 170, 264 (see coiling); twining (weaving), 145-157 (see twining); wickerwork, 157-158 (see wickerwork).
Technique, primitive, 40.
Temescal Creek, 5.
Temple of the Moon, Peru, 25.
Tennessee, 52, 59, 68.
Tertiary, 312.
Textiles, 396.
Thimbleberry, 320.
Thlinkites, 56.
Thomomys talpoides, 18, 339.
Thornbacks, 18.
Thrush, varied, 143, 145.
Thuswap Indians, 65.
Tiburon, 329, 330, 360.
Tide-flat, 365, 366.
Tide-land, 316, 360.
Tides, 3, 400.
Tidewater, 310.
Titicaca Lake, 55.
Tomales Bay, 331.
Tools, 341; chipped, 41; chisel-like, 65; scraper-like; 41; sporadic type, 41.
Tooth implements, 83.
Topography, 262; at Ellis Landing Shellmound, 360, 364.
Traps, deer, 136; elk, 136; fish, 136, 146, 147, 149, 156, 165, 167, 302; quail, 136, 165, 167, 302; rabbits, 136; woodpecker, 136, 166.
Trujillo, Peru, 25.
Tsuga heterophylla, 319.
Tubular bones, 80.
Tulare Lake, 6.
Tule, 140, 141.
Tuolumne County, 56.
Turkey, wild, 18, 32.
Turtle, 18.
Turtle-back, 33, 64.
Twining, 145-157, 170, 264; diagonal, 145-8, 150, 152, 153, 162, 170, 264; direction of, 161; fibers used in, 136; lattice, 145-8, 150, 152, 153, 163, 170, 264; manipulation, 136, 146, 154, 156, 161; plain, 136, 145-8, 152, 153, 156, 157, 159, 162, 163, 165, 170, 264; table of, 148; three-strand, 145-8, 152, 159, 162, 163, 170, 264.
Uhle, Max, 1; cited, 332, 374, 376, 385, 393, 397.
Umbellularia californica, 319.
Ungulates, 321, 378.
United States, 332; Geological Survey, 5; Bulletin of Geological and Geographical Survey, cited, 23; National Museum, 119.
Univalves, 337.
University of California, 2, 311, 327; campus, 322; collections of, 3, 25; Department of Anthropology of, 135, 311; Museum of Department of Anthropology of, 44, 94, 135, 311, 358.
Ursus sp., 18, 339.
Utensils of bone, horn, and the teeth of animals, 66-84; household, 341; shell, 396.
Vaccinium ovatum, 320.
Valentine shaft, skull from, 114.
Vallejo, 391.
Vancouver, 34.
Virchow, 21.
Virginia, 332.
Visitacion Valley, 6, 53, 54, 59.
Vitis californica, 139, 141, 320.
Voy, C. D., collection of, 116, 119.
Waders, 339.
Walker, Dr., 129.
Wappo, 141.
Warp, 148, 150, 152, 154, 156, 166, 264; dual, 153; elements used for, 136; multiple, 153; projecting, 152, 167; -twining, 154.
Warrow Indians, 35.
Washington, 18.
Water-bearing beds, 364.
Water-level, 11.
Weapons, 341, 384, 385.
Weaving, 53; see also Twining.
Wedges, elkhorn, 393.
Weft, 153, 155.
Wells, 363.
Welts, 152.
Wepfer, A. C., acknowledgment of assistance, 359.
West Berkeley, 5, 10, 19, 337.
West Indies, 332.
West Virginia, 25, 59.
Whale, 18, 339, 378.
Wheeler, G. M., Report on United States Geographical Surveys, 6, 391.

Errata.

- Whetstones, 386.
Whistles, 341, 394, 400.
Whitney, J. D., 108, 129, 131.
Wickerwork, 148, 157-8, 166, 264.
Wier, brush, 136, 157.
Wild cat, 18, 339, 378.
Wildcat Cañon, 364.
Wildcat Creek, 314, 361.
Wild cherry, 319.
Willow, 136, 138, 140, 141, 159,
160, 319; hoop, 140, 141; root,
138, 140; stems, 136, 264.
Winds at Ellis Landing Shell-
mound, 360.
Winslow, C. F., cited, 131.
Wintun Indians, 36, 38, 141, 163,
164.
Wolf, 18, 339.
Women, artifacts buried with, 384.
Wood, H. O., 359.
Wood's Creek, 111.
Woodpecker, 142, 144.
Woof, 136, 147, 148, 150; strands,
147.
Woven fibers on Peruvian shell-
mounds, 35.
Wright, George Frederic, cited, 120,
131.
Wyman, J., cited, 10, 19, 32, 42,
68, 77, 82, 125, 129.
Yarrow, H. C., cited, 22, 26.
Yates, L. G., cited, 6, 52, 54, 55,
56.
Yellowhammer, 145, 171, 172.
Yokuts Indians, 30, 141.
Yuki Indians, 138, 141, 158, 159,
164, 219.
Yukian Huchnom, 145.
Yukian Wappo, 141.
Yurok, 38, 152.
Zalophus californianus, 378.

ERRATA.

- Page 16, note 25. For "Minook" read "Miwok."
Page 57, note 96. For "Philadelphia" read "Pennsylvania."
Page 65, note 119. For "Thuswap" read "Shuswap."
Page 150, line 13. For "two-woof" read "two woof."
Page 161, line 21. Change period to comma.
Page 184, line 23. For "arrowhead-half, deer-back" read "arrowhead-
half deer-back."
Page 185, line 9. For "kü wi" read "küwi."
Page 187, ls. 6, 24. Insert comma between "arrowhead-projecting" and
"xagá-datip."
Page 188, line 8. For "dalú" read "dalau."
Page 204, line 14. Omit comma after "-maō."
Page 205, line 10. For "oō" read "ō."
Page 206, line 7. For "(or with)" read "and (or with)."
Page 207, line 22. For "wina" read "mina."
Page 209, line 36. For "xaga'datap" read "xaga'-datap."
Page 210, line 32. For "pcē' meo" read "pcē'-meo."
Page 218, line 10. For "thrown" read "shown."
Page 218, line 19. For "dasē-sē-tenka" read "dasē sē tenka."
Page 218, line 20. For "scattered along in a line" read "scattered-along-
in-a-line."
Page 232, line 13. For "daien'na" read "daie'nga."
Page 248, line 8. For "ctot-blank" read "ctot blank."
Page 250, line 1. For "pcē'-meō, ctot" read "pcē'-meō ctot."
Page 253, line 8. For "arrow-split" read "arrowhead-split."
Page 261, line 9. For "hua" read "hna."
Page 270. "Gabil, long (E)" is omitted from glossary.

Errata.

- Page 270. "Gaük, man(E)" is omitted from the glossary.
- Page 280, line 5. Insert "and" after "ones."
- Page 280, line 16. Omit "shell."
- Page 282, line 4. For "Horizontally" read "Diagonally."
- Page 282, line 9. For "the middle band" read "all three bands."
- Page 284, line 8. For "having a row of rectangles" read "and having a zigzag."
- Page 286, line 3. For "rectangles" read "zigzag."
- Page 286, line 16. For "vertically arranged" read "arranged in zigzag."
- Page 292, line 10. For "border" read "bordered."
- Page 292, line 13. For ", and rhomboids diagonally arranged" read "bordered by smaller triangles and with three narrow lines between."
- Page 294, line 3. After "by" insert "the dau which is filled with."
- Page 294, line 5. Omit "winnowing."
- Page 294, line 8. For "an interruption" read "the dau."
- Page 294, line 13. For "an interruption" read "daus."
- Opposite page 296. Pl. 24, the wrong object is illustrated in fig. 4. A seed-beater in plain twining on radiating warp should have been shown.
- Page 298, line 3. For "storage" read "tobacco."
- Page 298, line 5. Before "Lattice-twined" insert "Openwork."
- Page 298, line 6. For "on a multiple foundation" read "plate-form basket."
- Page 304, line 4. For "designs" read "elements."
- Page 306, line 3. After "designs" insert "which are newly invented under American influence."
- Page 306, line 5. For "An isolated design" read "One side of coiled basket showing one of its three equally spaced designs of unusual form."
- Page 308, line 2. After "twined" insert "bundle warp."
- Page 308, line 3. To read: "Figure 2.—Braided and twined warp border. No. 1-3040."
- Page 308, lines 4, 5. To read: "Figure 3.—Simple turned-down warp border."
- Page 339, line 34. For "*memphitis*" read "*mephitis*."
- Opposite page 416 and following, the objects illustrated are catalogued under the following numbers in the Museum of the Department of Anthropology of the University of California: Pl. 42, fig. 1, 1-13296, fig. 2, 1-13205, fig. 3, 1-13207, fig. 4, 1-11488. Pl. 43, figs. 1-11 respectively 1-13166, 1-11539, 1-11537, 1-10662, 1-13066, 1-11498, 1-13201, 1-11544, 1-11546, 1-13022, 1-13279. Pl. 44, figs. 1-8 respectively 1-13910, 1-13909, 1-13924, 1-13912, 1-13191, 1-13156, 1-13155, 1-11201, figs. 11-13 respectively 1-11552, 1-11506, 1-11522, fig. 15, 1-11189. Pl. 45, figs. 1-9 respectively 1-13164, 1-13163, 1-11188, 1-11502, 1-11144a, 1-11184, 1-11145, 1-11187, 1-13052, figs. 10-11, 1-13218. Pl. 46, figs. 1-10 respectively 1-11172, 1-11259, 1-9663, 1-13030, 1-11177, 1-13091, 1-11523, 1-13013, 1-13158, 1-13062. Pl. 47, figs. 1-20 respectively 1-13192, 1-10687, 1-9123, 1-10661, 1-9122, 1-10657, 1-10642, 1-10656, 1-9116, 1-10652, 1-9117, 1-10653, 1-10658, 1-10655, 1-10643, 1-9118, 1-10644, 1-10651, 1-9119, 1-10648.

UNIVERSITY OF CALIFORNIA PUBLICATIONS—(CONTINUED)

| | | |
|------------------------|---|--------|
| Vol. 8. | 1. A Mission Record of the California Indians, from a Manuscript in the Bancroft Library, by A. L. Kroeber. Pp. 1-27. May, 1908 | .25 |
| | 2. The Ethnography of the Cahulla Indians, by A. L. Kroeber. Pp. 29-68, plates 1-15. July, 1908 | .75 |
| | 3. The Religion of the Luiseño and Diegueño Indians of Southern California, by Constance Goddard Dubois. Pp. 69-186, plates 18-19. June, 1908 | 1.25 |
| | 4. The Culture of the Luiseño Indians, by Philip Stedman Sparkman. Pp. 187-234, plate 20. August, 1908 | .50 |
| | 5. Notes on Shoshonean Dialects of Southern California, by A. L. Kroeber. Pp. 235-269. September, 1909..... | .35 |
| | 6. The Religious Practices of the Diegueño Indians, by T. T. Waterman. Pp. 271-358, plates 21-28. March, 1910 | .80 |
| Vol. 9. | 1. Yana Texts, by Edward Sapir, together with Yana Myths collected by Roland B. Dixon. Pp. 1-235. February, 1910..... | 2.50 |
| Volumes now completed: | | |
| Volume 1. | 1903-1904. 378 pages and 30 plates | \$4.25 |
| Volume 2. | 1904-1907. 393 pages and 21 plates | 3.50 |
| Volume 3. | 1905. The Morphology of the Hupa Language. 344 pages | 3.50 |
| Volume 4. | 1906-1907. 374 pages, with 5 tables, 10 plates, and map | 3.50 |
| Volume 6. | 1908. 400 pages, with 3 maps | 3.50 |

GRAECO-ROMAN ARCHAEOLOGY. (Large Octavo.) (Published by the Oxford University Press.)

| | | |
|---------|--|---------|
| Vol. 1. | The Tebtunis Papyri, Part 1. 1902. Edited by Bernard P. Grenfell, Arthur S. Hunt, and J. Gilbert Smyly. xix + 674 pages, with 9 plates. Price | \$16.00 |
| Vol. 2. | The Tebtunis Papyri, Part 2. 1907. Edited by Bernard P. Grenfell, Arthur S. Hunt, and Edgar J. Goodspeed. xv + 485 pages, with 2 colotype plates and a map | 16.00 |
| Vol. 3. | The Tebtunis Papyri, Part 3. (In preparation.) | |

EGYPTIAN ARCHAEOLOGY. (Quarto.)

| | | |
|---------|--|-------|
| Vol. 1. | The Hearst Medical Papyrus. Edited by G. A. Reisner. Hieratic text in 17 fac-simile plates in colotype, with introduction and vocabulary, pages 48, 1905. (J. C. Hinrichs, Leipzig, 20 marks.) Price | 8.00 |
| Vol. 2. | Early Dynastic Cemeteries of Naga-ed-Der, Part I, by George A. Reisner. xii + 160 pages, with 80 plates and 211 text figures. 1908. (J. C. Hinrichs, Leipzig, 50 marks.) Price | 17.50 |
| Vol. 3. | The Early Dynastic Cemeteries at Naga-ed-Der, Part II, by A. C. Mace. (In press.) | |
| Vol. 4. | The Predynastic Cemetery at Naga-ed-Der. The Anatomical Material, by Elliott Smith. (In preparation.) | |
| Vol. 5. | The Cemetery of the Second and Third Dynasties at Naga-ed-Der, by A. C. Mace. (In press.) | |
| Vol. 6. | The Cemetery of the Third and Fourth Dynasties at Naga-ed-Der, by G. A. Reisner. (In preparation.) | |
| Vol. 7. | The Coptic Cemeteries of Naga-ed-Der, by A. C. Mace. (In preparation.) | |

SPECIAL VOLUMES.

| | | |
|---|--|---------|
| The Book of the Life of the Ancient Mexicans, containing an account of their rites and superstitions; an anonymous Hispano-American manuscript preserved in the Biblioteca Nazionale Centrale, Florence, Italy. Reproduced in fac-simile, with introduction, translation, and commentary, by Zelia Nuttall. | | |
| Part I. Preface, Introduction, and 80 fac-simile plates in colors. 1903. | | |
| Part II. Translation and Commentary. (In press.) | | |
| Price for the two parts | | \$25.00 |
| Fac-simile of a Map of the City and Valley of Mexico, by Alonzo de Santa Cruz, Cosmographer of Philip II of Spain. Explanatory text by Zelia Nuttall. Map in 7 sheets, 17 × 20 inches. (In preparation.) | | |
| The Department of Anthropology, Its History and Plan, 1905. Sent free on application to the Department, or to the University Press. | | |

UNIVERSITY OF CALIFORNIA PUBLICATIONS—(CONTINUED)

Note.—The University of California Publications are offered in exchange for the publications of learned societies and institutions, universities and libraries. Complete lists of all the publications of the University will be sent upon request. For sample copies, lists of publications or other information, address the Manager of the University Press, Berkeley, California, U. S. A. All matter sent in exchange should be addressed to The Exchange Department, University Library, Berkeley, California, U. S. A.

ASTRONOMY.—W. W. Campbell, Editor. (Lick Observatory, Mt. Hamilton, Cal.)

Publications of the Lick Observatory.—Volumes I-V, VIII, and X completed. Volumes VII and IX in progress.

BOTANY.—W. A. Setchell, Editor. Price per volume \$3.50. Volumes I (pp. 418), II (pp. 354), and III (pp. 400), completed. Volume IV (in progress).

CLASSICAL PHILOLOGY.—Edward B. Clapp, William A. Merrill, Herbert C. Nutting, Editors. Price per volume \$2.00. Volume I (pp. 270) completed. Volume II (in progress).

ECONOMICS.—A. C. Miller, Editor.

EDUCATION.—Edited by the Department of Education. Price per volume \$2.50.

ENGINEERING.—Edited under the direction of the Engineering Departments. This series will contain contributions from the Colleges of Mechanics, Mining, and Civil Engineering. Volume I (in progress).

GEOLOGY.—Bulletin of the Department of Geology. Andrew C. Lawson, Editor. Price per volume \$3.50. Volumes I (pp. 428), II (pp. 450), III (475), and IV (462), completed. Volume V (in progress).

MODERN PHILOLOGY.—Volume I in progress.

PATHOLOGY.—Alonzo Englebert Taylor, Editor. Price per volume, \$2.50. Volume I (pp. 347) completed.

PHILOSOPHY.—G. H. Howison, Editor. Volume I (pp. 262), completed. Volume II (in progress). Price per volume \$2.00.

PHYSIOLOGY.—Jacques Loeb, Editor. Price per volume \$2.00. Volume I (pp. 217) completed. Volume II (pp. 215) completed. Volume III (in progress).

ZOOLOGY.—W. E. Ritter and C. A. Kofoid, Editors. Price per volume \$3.50. Volumes I (pp. 317), II (pp. 382), III (pp. 383), and IV (pp. 400), completed. Volumes V and VI in progress. Commencing with Volume II, this series contains Contributions from the Laboratory of the Marine Biological Association of San Diego.

MEMOIRS OF THE UNIVERSITY OF CALIFORNIA. (Quarto.)

- Vol. 1. 1. Triassic Ichthyosauria, with special reference to the American Forms, by John C. Merriam. Pp. 1-196, plates 1-18; 154 text figures. September, 1908 \$3.00
2. The Silva of California, by W. L. Jepson. (In press.)

UNIVERSITY OF CALIFORNIA CHRONICLE.—An official record of University life, issued quarterly, edited by a committee of the Faculty. Price, \$1.00 per year. Current volume No. XII.

ADMINISTRATIVE BULLETINS OF THE UNIVERSITY OF CALIFORNIA.—Edited by the Recorder of the Faculties. Includes the Register, the President's Report, the Secretary's Report, and other official announcements.

Address all orders or requests for information concerning the above publications to The University Press, Berkeley, California.

European agent for the series in American Archaeology and Ethnology, Classical Philology, Education, Modern Philology, Philosophy, and Semitic Philology, Otto Harrassowitz, Leipzig. For the series in Botany, Geology, Pathology, Physiology, Zoology and also American Archaeology and Ethnology, R. Friedlaender & Sohn, Berlin.