A BIBLIOGRAPHY
ON THE AGRICULTURE OF
THE AMERICAN INDIANS

Compiled by

EVERETT E. EDWARDS and WAYNE D. RASMUSSEN
Bureau of Agricultural Economics
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CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>V</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Comprehensive histories</td>
<td>7</td>
</tr>
<tr>
<td>Agriculture of the American Indians:</td>
<td></td>
</tr>
<tr>
<td>Comprehensive references</td>
<td>14</td>
</tr>
<tr>
<td>Agriculture of particular regions and tribes</td>
<td>24</td>
</tr>
<tr>
<td>Specific crops and animals</td>
<td>45</td>
</tr>
<tr>
<td>Agriculture on Indian reservations in the United States</td>
<td>64</td>
</tr>
<tr>
<td>Uncultivated plants used by the American Indians:</td>
<td></td>
</tr>
<tr>
<td>Food and industrial plants</td>
<td>78</td>
</tr>
<tr>
<td>Medicinal plants</td>
<td>89</td>
</tr>
<tr>
<td>Index</td>
<td>97</td>
</tr>
</tbody>
</table>

III
PREFACE

The scope of this bibliography is delineated in the table of contents. The section of comprehensive references on the pre-Columbian agriculture of the American Indian is of special interest to the general reader. The section on the centers of advanced agricultural development supplies references for the research worker who wishes to know about the methods used by the Indian in terrace farming, irrigation, conservation, and other evidences of progress beyond primitive cultivation. The section on the particular crops domesticated and raised by the Indian will, it is hoped, be helpful to the scientist in carrying on research incident to the history and improvement of these crops. The section on the agriculture of the reservations in the United States provides selected references on recent and present-day problems of irrigation, conservation, forestry, and land use. The sections on food and medicinal plants used by the Indian are of similar import for the scientist who seeks new sources of food and drugs. In view of the fact that the Indians constitute a large share of the populations of the New World countries other than the United States and Canada, the bibliography may also contribute to a better understanding of the culture of these countries and therefore to closer relations between North and South America.

The bibliography is comprehensive insofar as practicable. It includes the references that appear in the publication entitled "Agriculture of the American Indians; A Classified List of Annotated Historical References with an Introduction" which was issued in mimeographed form as U. S. Department of Agriculture Library Bibliographical Contributions 23 (ed. 1, May 1932; ed. 2, June 1933). To insure completeness, the following indexes have been consulted: Agricultural Index, 1916-1939; Annual Magazine Subject Index, 1908-1938; Industrial Arts Index, 1914-1939; International Index to Periodicals, 1920-1939; Poole's Index to Periodical Literature, 1882-1906; Readers' Guide to Periodical Literature, 1900-1939; Readers' Guide to Periodical Literature Supplement, 1907-1919; and Writings on American History, 1906-1935.
INTRODUCTION

If the Western Hemisphere had been unoccupied by an aboriginal people, the story of its conquest by Europeans would have been quite different. Although the American Indian was the cause of the red line of conflict on the frontier, he made many contributions to our present civilization (48). Not the least of these were his agricultural plants, methods, and processes. It has been estimated that four-sevenths of the total agricultural production of the United States, measured in farm values, consists of economic plants that were domesticated by the Indian and taken over by the white man (104-105). The extent of the debt to the Indian for his work of domestication is emphasized when we recall that the white man has not reduced to cultivation a single important staple during the 400 years that he has dominated the New World.

In taking possession of the continents of the Western Hemisphere, among the first lands utilized by the Europeans were the clearings made by the Indians for their crude farms (315, 317-318). The whites attempted to use their European crops and methods but found it necessary to adopt many of those in use among the Indians. Out of the union of American Indian and European farming came the first solution of the food-quest problem of the colonists and the beginnings of modern American agriculture. Herein lies the reason that, in any adequate study of the history of agriculture in the United States, the agriculture of the Indians cannot be ignored.

Anthropologists tell us that the remote ancestors of the American Indian came from Asia some 10,000 or more years ago, while in the Neolithic stage of development. At that time they had no food supply in the form of domesticated plants and animals, nor did they know how to use metals. Their only implements were bows and arrows, stone axes, and knives. The same was true of the tribes that remained behind in the Eastern Hemisphere. Eventually, each group developed a stable food supply from the plants and animals at hand, entirely ignorant of the way the other was solving the same problem (23, 105, 109). In this connection H. J. Spinden's chronological and economic diagram of the parallelism between the development of the civilization of the Eastern and Western Hemispheres is of interest (104).

1 Anne C. Chew has aided throughout the preparation of this bibliography.
2 The numbers in parentheses refer to the corresponding items in the bibliography.
For a long time the descendants of these first immigrants to America knew nothing of agriculture, but eventually tribes in the highlands of Mexico and Central America began the practice of protecting the plants relied on as their main source of food. Then, perhaps considerably later, they began to weed and, in a crude way, to cultivate them. Still later, they undertook systematic gathering of seeds and roots for planting in protected areas. This invention of agriculture in the Western Hemisphere, which occurred thousands of years ago, made possible noteworthy advances in human culture.

The flowering of the Mayan civilization—which began about 1000 B.C.—was based upon the economic conquest of the humid tropics. The Mayas not only modified the old series of plants to meet wetland conditions but also domesticated indigenous plants. The cacao plant, representations of whose pods appear as details of several sculptures at Copan dating from the fifth century A.D., was tended, and chocolate was prepared from its seeds. Other plants were also brought under cultivation, among them the papaya, the anona, the avocado, and the zapote (195, 201, 205–206, 208).

As a result of the gradual spread of the cultivation of maize, beans, and squashes to the north and south, agriculture came to be practiced in widely scattered parts of the Western Hemisphere. The process of distribution was slow, for gradual acclimating of the cultivated plants to localities farther and farther from their original tropical or subtropical homes required many centuries. To supplement these nonindigenous plants, however, local plants were brought under cultivation in the several regions. In South America the most important indigenous plant was the potato, a native of the Andes (446). In the Amazon Valley, the manioc, the sweetpotato, the pineapple, and the peanut were developed as sources of food. For North America, above Mexico, the indigenous food plants similarly utilized were limited to the Jerusalem artichoke and the strawberry. Had it not been for their natural abundance, it is probable that the blueberry, the cranberry, and wild rice would have been domesticated.

Paramount among the food plants domesticated and developed by the Indian and given directly or indirectly to the white man is corn, or maize. The white potato was destined to become one of the world’s greatest food staples, along with wheat, rice, and corn. Tobacco is one of the most important of our present-day cash crops. Other plants originally used by the Indian are agave, alligator pear or avocado, arrowroot, barnyard grass, the many varieties of kidney and lima beans, cacao, capsicum or chili pepper, cashew nuts, cherimoya, cocoa, cotton (Gossypium barbadense L.), gourds of all kinds, guava, Jerusalem artichoke, madi, manioc or cassava, mate or Paraguay tea, oca, papaya, peanut, pineapple, prickly pear or Indian fig, pumpkin, quinoa, squash, star-apple, sweetpotato, and tomato (23, 65).

The adaptation of European methods to American conditions proved a problem of extreme difficulty. For several years after their foundation the first colonies faced starvation and survived only because of the supplies they received from the mother country and the food they bought or took from the Indians. The permanence of the colonies was assured only when they were established agriculturally, and this came after the crops and tillage methods of the natives had been adopted. Governor William Bradford told how Squanto came to the
relief of the Pilgrim Fathers, "showing them both ye maner how to set it [corn] and after how to dress & tend it. Also he tolud them excepte they gott fish & set with it (in these old grounds) it would come to nothing."

The entire "maize-culture complex"—to use a term of the anthropologist and the sociologist—was taken over by the white man (402). The farm of the pioneer, whether in the seventeenth century or the twentieth, is a counterpart of the Indian cornfield. The ground is exposed to the sunlight by girdling the trees or scotching their roots, and the trunks and stumps are removed by burning. The kernels of corn are planted in hills 3 or 4 feet apart; beans are planted with the corn, and pumpkins and squashes between the hills. The soil is cultivated to check the weeds and to keep it loose and friable. Scarecrows—and sometimes children on platforms—are used to keep away the birds. In harvesting the corn, the husking peg is still useful. The corn is stored in slatted cribs upon posts to facilitate air circulation. When used for human food, it is prepared in ways devised by the Indians. It must be granted that the white man has added machinery and animal power to the Indian method of planting corn and other plants of New World origin, but the native system of placing the plants in hills and heaping earth about the stalks during cultivation is still a fundamental process in farming, just as broadcast seeding is essential in growing the grains of Old World origin.

Several varieties of cotton were used by the Indian in pre-Columbian times. It is probably the only important cultivated plant which was domesticated independently in both hemispheres. Today the mainstay of the world's cotton industry is a native American species, *Gossypium hirsutum* L., which was cultivated by the Indians of Mexico. Besides llama wool and alpaca the Indian used several kinds of the maguey (*Agave americana* L.) and the *Agave sisalana* Perr., the sisal hemp, the piassava, the leaves of the pineapple, and the ixtile as sources of fiber. In northeastern North America the whites followed the Indian in making ropes and strings from black Indian hemp (*Apocynum cannabinum* L.) and the mark of the leatherwood (*Dirca palustris* L.). The Indian realized the properties of rubber. When the Spaniards entered Mexico they watched Indian ball games played in public courts and obtained balls as souvenirs to send home. A recent writer has referred to this incident as the beginning of the world's rubber trade (3).

Many vegetable products were gathered by the Indians but were not cultivated because of their natural abundance. Berries and roots were important sources of food and medicine. In contrast to our field crops, the American fruit industry is built mainly on fruits not native to this country. Of the common fruits, the following may be cited as native: Blackberry, blueberry, crab apple, cranberry, dewberry, elderberry, June berry, gooseberry (native in distinction from the European type), grape (excepting the European or vinifera type), huckleberry, mulberry (certain relatively unimportant types), persimmon (native in distinction from the Oriental type), plum (native in distinction from the Japanese and European types), raspberry (both red and black), and strawberry. The preponderance of berries
in this native list is striking, and the absence of fruit trees is equally so. Two diagrams in the Yearbook of the United States Department of Agriculture for 1925 indicate effectively the relative importance of vegetables and fruits native to the United States and those introduced from other lands. Although the great bulk of the fruit grown represents varieties originated here, these varieties have come largely from foreign species.

The Indian had few domesticated animals. The dog alone was practically universal. In the Andes, the Incas had llamas and alpacas. The llamas were raised in herds, numbering thousands, and were not only used in transportation but were sheared for their wool and slaughtered for their flesh. Other domestications include that of the guinea pig by the Incas and that of the turkey by the tribes of Mexico and the southwestern United States, who kept them for their eggs and feathers as well as for their flesh. Bees were kept by the Aztecs, Mayas, and certain of the lesser tribes.

In aboriginal America, irrigation was practiced from Arizona to Chile. In the Salt River Valley there were about 150 miles of main irrigation ditches, and some of these have been incorporated into the modern systems. In Peru, irrigation was carried out on a scale scarcely equaled by modern peoples. The remains of the aqueduct systems of the Inca Empire show genius and organization which may well be respected today (280, 313).

Artificial fertilization was widely undertaken. One of the most prevalent methods, especially along the Atlantic coast, was to place fish in the cornhills during planting. In parts of the area of intensive agriculture manures were used.

In North America, hominy, pone, sagamité, samp, succotash, and supawn are typical native dishes. Pemmican and jerked beef were first prepared by the Indian, and in the Great Lakes region wildrice was and still is used in such quantity as to make it a staple (490). The entire technique of preparing maple sugar has been acquired from the Indian, and his way of cooking clams by baking and of preparing fish by planking have been adopted. The folk foods of Spanish America are largely aboriginal in origin; so also are the drinks—pulque, mescal, chicha, and cachiri. Various methods of making more palatable certain fruits, herbs, roots, and game were learned from the natives. Chewing gum also came from the Indian.

Following the discovery of America, many of the medicines used by the Indians became popular in Europe (48). While some of these are now regarded as having little therapeutic value, others are still of prime importance. At first Europeans regarded guaiacum wood (lignumvitae) and sarsaparilla as the most important American medicines. Tobacco and copal were first introduced into Europe as medicines. In the American colonies the Indian doctor who knew the uses of herbs, barks, leaves, roots, and juices treated the white pioneers or taught them secret remedies. The natives of Bolivia and Peru chewed the leaves of the coca plant long before the Spanish conquest, and they realized its physiological action in diminishing the feeling of fatigue and in dulling pain. Observing these facts, the white man developed cocaine for use as a local anesthetic.
The bark and leaves of the witch-hazel were also widely used for soothing irritations. Cascara sagrada and quinine have proved their merits as remedies, the latter being an aid of inestimable value in conquering the fever-ridden tropics.

The Indian discovered and developed a number of excellent dyes. Chief among these was that made from the cochineal, an insect from southern Mexico which was domesticated and grown on the nopal or pricklypear cactus. Another important dye, also the result of domestication, was anil, or American indigo. In Central America the Indian used the secretion of the murex shellfish as a purple dye.

These, in summary, are the contributions of the American Indian to agriculture. Applying a well-known inscription—*Si monumentum requiris, circumspice*—to the Indian, we may close by saying "If you seek his monument, look around."
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"A well-written and well-illustrated volume describing, in a nontechnical manner, the cultures of significant areas in the New World as revealed by archaeology, together with general observations on Indian civilization."—Canad. Hist. Rev. 20: 97 (March 1939).

The volume includes material on the agriculture of the ancient Indian civilizations.

CAPITAN, LOUIS, AND LORIN, HENRI.

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DAVIS, EMILY CLEVELAND.
ANCIENT AMERIOANS; THE ARCHAEOLOGICAL STORY OF TWO CONTINENTS. 311 pp., illus. New York, Henry Holt & Co. 1931.

See especially ch. 18, We Owe These to the Indian, pp. 272-282, and Basket Makers agriculture, pp. 77, 80; world debt to Indian agriculture, pp. 274-275; development of Indian agriculture, pp. 242-246; Mexican archaic agriculture, pp. 175, 213; Mound Builders' agriculture, pp. 119, 131; Indian agriculture in New England, p. 7; Peruvian agriculture, pp. 224, 276; Pueblo agriculture, pp. 6, 91; Irrigation, pp. 6, 25, 26, 229; menu for complete dinner of American origin, p. 272.


DIXON, ROLAND B.

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EMBREE, EDWIN ROGERS.

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See also the index under the following headings: Agave; Agriculture; Ahucocotl; Animals, domestic; Avocado pear; Aztec calendar cycle; Aztec markets; Buffalo; Chicle; Coca, cocaine; Communal living; Cotton; Crops; Diseases; Food; Gardens; Highways; Horses; Inventions; Irrigation systems; Llama; Maquey plant; Maize; Maya agricultural year; Medicine; Money economy; Ovens; Penmmlcan; Planned economy; Quinine; Sanitary regulations; Sisal; Slaves; Social organization; Teocalli; Teocentl; Textiles; Tobacco; Vicuña; Warehouses.

FARRAND, Livingston.


See pp. 70–262, which include the following chapters: 6, Classification and Distribution of the American Indians (1500–1900); 7, The Eskimo and the North Pacific Indians (1500–1900); 8, The Indians of the Northern Interior and the Lower Pacific Coast (1800–1900); 9, The Indians of the Great Plains (1700–1900); 10, Northern Tribes of the Eastern Woodlands (1600–1900); 11, Southern Tribes of the Eastern Woodlands (1600–1900); 12, Indian Tribes of the Southwest and of Mexico (1500–1900); 13, Social Organization of the Indians (1500–1900); 14, Indian Houses, House Life, and Food Quest (1500–1900); 15, Indian Industrial Life and Warfare (1500–1900); 16, Indian Religion, Mythology, and Art (1500–1900); 17, Character and Future of the Indians (1904). Critical essay on authorities, pp. 272–289. The map following p. 90 indicates the location of the Indian tribes.

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HEBMANT, Paul.


Economic conditions, houses, arts and industries, hunting and fishing, agriculture, social and political conditions, and family and marriage.


HODGE, Frederick Webb, ed.


This handbook combines the features of a dictionary, cyclopedia, gazetteer, and bibliography of things pertaining to the aboriginal inhabitants of North America north of Mexico. Consult such topics as the following: Agriculture; cotton, by Walter Hough; domestication; food; gourds; irrigation; maize, by Cyrus Thomas; tobacco, by Joseph D. McGuire; wildrice, by Alexander F. Chamberlain; hoes; implements and utensils; spades. The folded map at the end is important; it shows the regional distribution of the Indians and the barriers which the various tribes made to the white advance. Bibliography, pt. 2, pp. 1179–1221, and a bibliography with each important subject.


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HUNTINGTON, Ellsworth.

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See ch. 5, The Red Man in America, pp. 188–172; and the Bibliographical Note, pp. 173–175. See also the same author's article entitled "The First Americans" in Harper's Mag. 122: 451–462 (February 1911).

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PREHISTORIC ANTIQUITIES OF INDIANA. 293 pp., illus. Indianapolis, Ind. Hist. Soc. 1937.

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Nothing on agriculture or food, but considerable material on implements. Reviewed by R. G. M. in Ohio State Archaeol. and Hist. Quart. 48: 83–87 (January 1939).

MacLeod, William Christie.

THE AMERICAN INDIAN FRONTIER. 598 pp., illus., maps. New York, Alfred A. Knopf. 1928. (History of Civilization ... Historical Ethnology.)

“This volume represents the first attempt at an analysis of American frontier history made particularly from the viewpoint of the Indian side of frontier development.” It is a study of the impact of European civilization on the American Indians. For reviews, see Canad. Hist. Rev. 10: 73–77 (March 1929); and Eng. Hist. Rev. 44: 326–327 (April 1929).

Pt. 1, The Indians: 1, The Origin of the Indian; 2, How the Indian Lived (numerical strength; economic pressure; ownership of land; private ownership; social classes and slavery; political society; the Indian’s industrial disadvantages); 3, How the Indian Tried Prohibition but Drank Too Much; 4, Smallpox and Other Diseases Among the Indians; 5, The Pre-Columbian Discoveries and the Meaning of Columbus.

Pt. 2, The Conquerors: 6, Spanish Aims in the Americas; 7, The Spaniards Kill off the First Indians and Replace them with Negroes; 8, They Put the Rest to Work; 9, The Catholic Missions; from Canada to Paraguay; 10, Enslavement of Indians in Latin America: A Retrospect; 11, The Business Corporation Takes a Hand in Empire Building.
Macleod, William Christie—Continued.


Pt. 4, Social Retrospects: Contrasts Between the Latin and Anglo-Saxon Americans; 20, The Indian Labour Supply, Free and Slave, and Negro Slavery; 21, Other Compulsory Indian Labour, North and Latin American Compared; 22, The Mission System, and the Failure in North America; 23, Indian Against Indian, the Price of Freedom; 24, The Origin of Hate, Race Prejudice in North and Latin America; 25, Segregation of Races in Reservations in Latin America and Early North America.


Mason, Gregory.

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See ch. 3, Mother Maize, pp. 33-45; ch. 6, Vegetable—Fed, pp. 81-106; ch. 7, Agricultural Cities, pp. 107-129; ch. 13, The World's Most Successful Experiment in Socialism, pp. 257-282; List of Agricultural products and by-products given to the world by America, p. 120; Bibliography, pp. 329-334.

Picture of Peruvian pottery representing ears of corn and peanuts, p. 4; fossilized ear of corn found in Peru, p. 4; vases representing vegetables cultivated in ancient South America, p. 96.


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Payne, Edward John.


V. 1, bk. 2, and v. 2 deal with aboriginal America, chiefly the conditions of life among the Indians as the result of natural conditions, especially the nature of the food supply and the lack of useful domestic animals.

In v. 1, note particularly the following discussions: Artificial production of food (savagery, barbarism, and civilization; food and the food surplus; method of artificial production; prevalence of savagery in the New World accounted for; unequal value of food animals and plants in relation to advancement; the dog in relation to advancement; poverty of the New World in animals capable of domestication; absence in New World of milch animals; effect of milch animals on population), pp. 276-292; the llama (antiquity of its domestication; basin of Lake Titicaca; alpaca, domesticated animals; conversion of the auchenias into an artificial basis of subsistence; groups of alimentary vegetable species), pp. 292-304; alimentary vegetables of Old and New World
Payne, Edward John—Continued.
compared (fruits in relation to advancement), pp. 304-310; cultivation of roots prior to that of cereals (the potato; roots superseded by cereals; advanced root culture, desiccation, instance of a root-cultivating population—Haiti; manioc cultivation in Haiti; social condition of Haiti; Haitian religion; labour involved in the culture of vegetable species), pp. 310-320; cereal agriculture in the New World—maize (origin of maize cultivation in Mexico and Central America; other centres of maize agriculture probable; obstacles to maize cultivation; maize in South America—Paraguay and Southern Peru; Cafiari legend of the origin of maize cultivation; Northern Peru and New Granada; centres of artificial food production in America; migratory and stationary food production; primitive agriculture in America; transition to permanent agriculture; surface tillage in eastern North America; natural surface tillage on the Pacific side; cultivation of maize in relation to temperature; artificial extension of cultivable lands, terraces of Peru; minor extensions of cultivable areas; irrigation; irrigation for the purpose of warping, manuring; formation of the calendar; calendar feasts; modes of determining the solstices; art of masonry), pp. 320-354; extension of agriculture to nonalimentary and subalimentary plants (agriculture and intoxicants; agriculture and drunkenness; extensions of agriculture, chilli pepper; the cotton plant; the American aloe; the pulque aloe; reduction of the aloe to cultivation; saccharines from the aloe and maize; the cacao tree; historical importance of the cacao tree; cacao the first object of special tropical agriculture; cacao, coffee, and tea; the Chian plant; the oil Chian; the coca tree), pp. 362-389; agriculture and religion pp. 389-433.


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(History of North America, edited by Guy Carleton Lee, v. 2.)


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Note especially ch. 1, The Food Areas of the New World, pp. 1-27; and ch. 2, Domestication of Animals and Methods of Transportation, pp. 28-41.

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Skinner, Constance Lindsay, and Wood, William.

ADVENTURERS IN THE WILDERNESS. 369 pp., illus., maps. New Haven, Yale Univ. Press. 1925. (The Pageant of America, edited by R. H. Gabriel, v. 1.)

Pp. 1-64 deal particularly with the American Indians and contain 127 pictures of them. Other parts of the book also contain material on the Indians.
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AMERICA'S GIFTS TO THE OLD WORLD; A PAGEANT OR MASQUE FOR HOME ECONOMICS STUDENTS. 20 pp. Baltimore, Amer. Home Econ. Assoc. 1915. (Richards Mem. Fund Pub.)
"The Pageant or Masque is designed to emphasize the fact the New World gave to the Old many new fruits, vegetables, grains, ornamental plants, dyes, and other things valuable for daily use, as well as some new useful arts and new sports which were learned from the Indians."—p. v.

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BLAOKBURN, GLEN A.


BRAND, DONALD D.
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The article uses North American Indians as examples of several stages of diet.

CAPRON, MARJORIE.

AN ALL-AMERICAN THANKSGIVING DINNER. WORLD REV. 3: 151, ILLUS. NOVEMBER 22, 1926.

“What we eat to-day is what the Indians taught our Pilgrim Fathers to raise three hundred years ago.” The illustration is “The First Thanksgiving Feast in America” from the painting by J. L. G. Ferris in Independence Hall, Philadelphia, reproduced from The Pageant of America.

CARR, LUCIEN.


See also the same author’s article “Food of North American Indians” in Lend a Hand 15; 347–354 (November 1895).


The Indian as an agriculturist, pp. 507–533. Bibliographical footnotes.
CABBIEK, LYMAN.


See 3, American Indians, pp. 20-25; 4, Natural Vegetation in Eastern America, pp. 26-40; 5, Indian Agriculture, pp. 41-52; 6-7, Indian Crops, pp. 53-78; 8, South and Central American Indian Crops, pp. 79-89; 9, Miscellaneous Indian Products and Practices, pp. 90-101; Bibliography, pp. 308-312.

See also the same author's article "Indian Agriculture" in South. Agr. 50 (4): 16-17 (Feb. 15, 1929).

CHAMBEBIJUN, ALEXANDEB F.

THE CONTRIBUTIONS OF THE AMERICAN INDIAN TO CIVILIZATION. Amer. Anti-

Valuable summary of the contributions of the American Indian, other than agricultural, to civilization: geographic names; words; influence on literature; trails; devices in hunting and fishing; agricultural processes; materials and methods in arts and industries; recreations like lacrosse and snowshoeing; foods and drinks; medicines and narcotics.

COOK, ORATOB FULLEB.

THE DEBT OF AGRICULTURE TO TROPICAL AMERICA. Pan Amer. Union Bul. 64: 874-887. September 1930.

Domestication of American plants; interchange of crops; tropical agriculture in the United States; maize our preponderant crop; food habits difficult to change; valuable cottons from Mexico; domestication of quinine and rubber; our tropical heritage.

The illustrations include views of the following: terraced gardens in the Peruvian highlands; ear and kernels of the Cuzco type of maize from the middle farming zone of Peru at elevations between 8,000 and 11,000 feet; ears and kernels of the Pigmy maize of the highest altitudes on the Islands and slopes around Lake Titicaca; a field of Acala cotton in southern California; a mature plant of Acala cotton, showing abundant fruiting habit; open boll and combed fiber and seeds of Acala cotton; tapping a Hevea or Para rubber tree on a small plantation on the north coast of Haiti.


"The milpa system of agriculture is characterized by the planting of crops in temporary clearings."

DU BOIS, CONSTANCE GODDARD.


EDWARDS, EREVETT E.


Summary of the contributions of the Indians to present-day civilization with emphasis on agricultural contributions. Reprinted with the title "Indian Contributions to Civilization" in Scholastic 29 (6): 16 (Oct. 24, 1936).

EGGLESTON, EDWARD.


BIBLIOGRAPHY ON THE AGRICULTURE OF THE AMERICAN INDIANS

FABABEE, WILLIAM CURTIS. (55)
Agriculture and geographic environment are closely connected. See also Azara, Felix de, Voyages dans l’Amerique Meridionale . . . depuis 1781 jusq’en 1801. 4 v. (Paris, 1809).

FAULKNER, HAROLD UNDERWOOD. (56)
See pp. 8-11, on the influence of the character and distribution of American native products on the early settlers; pp. 60-63, on the agricultural achievements of the American Indian; and pp. 131-132, on Indians and the early westward movement.

FRACHTENBERG, LEO J. (57)
Also in Wis. Archeol. 14: 64-69 (July 1915). A summary of Indian contributions, including agriculture, based in part on item 48.

GABRIEL, RALPH HENRY. (58)
TOILERS OF LAND AND SEA. 340 pp., illus., maps. New Haven, Yale Univ. Press. 1926. (The Pageant of America, edited by R. H. Gabriel, v. 1.)
See pp. 29-32 for seven paragraphs on the agriculture of the Indians of Virginia and New England. Illustrations showing an Indian village in Virginia with its fields, Indians planting corn, a Virginia harvest, Indians storing corn, Indians making maple sugar, and Squanto teaching the principles of corn culture accompany these paragraphs.

GILMORE, MELVIN RANDOLPH. (59)
The proposal of the Museum of the American Indian, Heye Foundation, to lay out and plant an American ethnobotanical garden in the interior court of their collection building in the Bronx, New York, near Pelham Bay Park.

GRIGORY, CLIFFORD V. (60)
Introduction; interpretation of culture traits; as a measure of culture; relation to symbolism ceremonials, philosophy, linguistics, history; scope of primitive science; botanical observation in connection with pursuit of other lines of investigation; methods; preparation of specimens for herbarium; specimens of plant products; discrimination and careful sifting of information; distinction between indigenous and introduced plants; etymology of Indian plant names. Summary by the same author in Social Sci. Abs. 4: 14152 (August 1932).

GREGORY, CLIFFORD V. (61)
The pictures are of agricultural implements made and used by early North American Indians—digging and planting stick, rakes, hoes, shoulder blade hoe with decoration, winnowing basket, and pick made of a jawbone are shown. Also pictures of ancient Maya pottery—a jug representing a gourd or melon, one personifying corn, and a bowl containing peanuts—"just as they were left centuries ago in a Maya tomb."

GRINNELL, GEORGE BIRD. (62)
Hawley, Florence M. (63)

“Simple chemistry, as a result of long observation rather than as a science, was of considerable importance to primitive people who employed it in the production of their arts.”—p. 35.

Origin of ceramics; materials used in pottery; decoration of pottery; pastes and pigments used in pottery; chemical composition of the black pigments; coloring matter employed in other arts.

Herndon, C. A. (64)

A menu for an all-American dinner is given. “The main ingredient of every dish on this bill of fare originated in the Americas and had been won from the wilds by Indians before white men put foot on the continent.”

Holmes, George K. (65)

Particularly noteworthy is the list of plants used by the Indians before the advent of the whites, pp. 25-26, and the bibliographical notes.

Jenks, Albert Ernest. (66)

Introduction; some beliefs affecting production; some beliefs affecting distribution; some beliefs affecting consumption.

Kinney, Clesson S. (67)

This article was written for The Irrigation Age in the early nineties by the late Judge Clesson S. Kinney of Salt Lake City, who in his day was considered one of the best informed men in irrigation law and history in the United States. About half of the article is devoted to ancient irrigation in the New World.

Kirkland, Edward C. (68)

Lantis, L. O. (69)


Lowie, Robert Harry (71)

MacLeod, William Christie. (72)

MacLeod, William Christie. (73)


“What the Indians gave us to eat and how their discoveries influenced the dietary habits of the world.”—Subtitle. Summarized under the title “American Aborigines; Great Farmers” in Lit. Digest 121 (16): 22 (Apr. 18, 1936).


Special attention is given to the plants of New World origin on pp. 240-247.


“Agriculture in America was developed independently and was not influenced in the slightest by any agricultural development in the Old World.”


“The diametrically opposed theories of early Eurasian influences versus an autochthonous civilization in America,” have led the author “to approach the subject from a point of view that has curiously been overlooked, ignored, or minimized by proponents of the Eurasian influence idea, and by most or all popular writers on ethnological subjects bearing on this question, and that is from the standpoint of the origins of cultivated plants and domestic animals, or in other words the origins of agriculture. These points have been considered by some ethnologists who have realized their full significance, but many seem to have avoided anything approaching the field of biography.” His conclusion is that “the biological-agricultural evidence is wholly and unmistakably in support of an autochthonous development of the pre-Columbian civilizations in America, with no Eurasian contacts or influences shaping or developing them.” Summary by E. B. Renaud in Social Sci. Abs. 4: 101 (January 1932).


Article based on José García Payón, Axmayoxatl; o Libro del Chocolate (Tolmuca, Mexico, 1936). Cacao was cultivated and used in many ways by the Indians, and early became popular with the Spaniards.


American Indian agriculture, pp. 193-194.


OLIN, Walter Herbert. (82)


PARKINS, A. E. (83)

The Five Nations; the Hurons; the Ottawas; the Chippewas; wildrice Indians; Indians of the lake plains and river valleys between Lakes Erie and Michigan; the Indians forest economy; Indian as fisherman; Great Lakes fishing sites; Indian as hunter; unused resources and the effect of civilization.

PEET, S. D. (84)

Early Indian agriculture throughout America, with emphasis on Wisconsin.

PÉNARD, J. M.

Landownership among the little-known Chippewayan, an Athapaskan-speaking tribe of northern Saskatchewan and Alberta. A note by Father John Cooper summarizing the data in old sources on northwestern tundra land tenure, and indicating its significance in relation to the similar land tenures of the northern Algonkian is also included.

PETRULLO, Vincenzo. (85)

Aztec, Mayan, and Incan civilizations, including agricultural achievements.

POWELL, E. P. (87)

POWELL, J. W. (88)

Subsistence of the Indians, pp. 245-249; domestication of animals by Indians, pp. 249-251; Indian technology, pp. 251-256.

RENAUD, E. B. (89)

Chiefly concerning the buffalo as the center of the plains culture.

SAFFORD, William Edwin. (90)


The illustrations show a display in the U. S. National Museum of terra cotta funeral vases representing food products, from ancient Peruvian graves of the coast region near Trujillo and Chimbote, and four individual vases. The subheadings are: maize; quenam; beans; lupines; peanuts; other legumes; Bromeliaceae; gourds; squashes and pumpkins; Annonaceae; Lucumus; pepinos; Cyphomanda; almonds of Chauchaypors; Capsicum peppers; pichurim beans; balsam of Peru; seeds used as rattles; roots and tubers; coca; chocolate; Ilex paraguayensis (yerba mate); Nicotiana tabacum (tobacco); cohoba, the narcotic snuff of Hispaniola; other narcotics; textiles; cotton; Ficus carica fiber.


The menu composed entirely of dishes made up of foods discovered with America is of considerable interest.
SAFFORD, WILLIAM EDWIN. (92)
The complete isolation of America from the rest of the world before the time of Columbus, indicated by the fact that no grain or food plant of the Old World had found its way to the Western Hemisphere in prehistoric times and vice versa.


The important plants used as food, medicine, and dyes, and the textile and other economic plants discovered and introduced into cultivation by the American aborigines before the time of Columbus. Translated under the title "Our Heritage from the American Indians" in Smithsn. Inst. Ann. Rpt. 1926: 405–410, illus.

SANFORD, ALBERT HAFT. (95)
See ch. 1, The Indians as Farmers, pp. 1–11.

SAPPER, KARL. (96)
Tropical agronomy in pre-Columbian America; temperate agronomy in America; ancient Indian animal breeding; pre-Columbian additions to Indian agriculture. The map following p. 72 gives a good picture of the agricultural regions of pre-Columbian America.

The reasons why the pre-Columbian cultures developed on highlands; the types of states developed among the Indians. Climatic factors are stressed.

SAUER, CARL. (98)
American agriculture had plural origins in the humid lands of mesothermal climate.

SPECK, FRANK G. (99)
"Both the system of land tenure and the close association, often of an almost spiritual nature, that existed between the Algonkian Indians of north-eastern Canada and all species of animals and plants prevented wanton destruction, and led to a thoroughly satisfactory system of wild life conservation."—Canad. Hist. Rev. 20: 104 (March 1939).


SPINDLE, HERBERT JOSEPH. (101)
"De Cómo los Indígenas del Continente Americano Cultivaban y Explotaban Numerosas Plantas Agrícolas, Forestales y Medicinales—Patatas, Maíz, Cacao, Habichuelas, Cacahuates, Caúcho, etc.—ya Muchos Siglos Antes de la Llegada de los Españoles."—Subtitle.
Spinden, Herbert Joseph.


The illustrations show the following: pottery reproductions of maize, cast in molds that were made over actual ears of maize—these reproductions were sometimes used as details on great ceremonial urns in southern Mexico; pottery reproductions of squashes; the "maize god" of the Peruvians whose body is formed of molded ears of maize, buried in the field as a prayer for good crops; a water jar decorated with peanuts found in the cemetery of Chimboote on the arid coast of Peru. The map shows the pottery distribution and agriculture in the New World.


Though pertaining primarily to Central America, the factors which have led to the decrease of the Indians there are applicable to the race as a whole, and the author's estimates of population refer to both continents. The chronological and economic diagram of the parallelism between Old and New World civilizations presenting in summary form some of the facts bearing on the question of the population of ancient America is of particular interest. There are a few paragraphs on Indian agriculture, including the statement that about four-sevenths of the agricultural production of the United States (farm values) is in economic plants domesticated by the American Indian and taken over by the white man.


Thank the American Indian; we owe to the Indian well over half of our great agricultural wealth; potatoes, maize, cacao, beans, the peanut, rubber and other plants were domesticated here long before Columbus discovered America. Sci. Amer. 138: 330-332, illus. April 1928.

Excellent study of the origin and domestication of the plants which constituted our inheritance from the ancient civilization of American Indians. In the first paragraph the author states that four-sevenths of our total agricultural wealth "consists of crops unknown in the Old World until after the momentous voyage of Columbus."

The illustrations show the following: A stone on which is a carving of the monkey god of cacao, cacao pods being attached to his limbs and tail; the goddess of water holding ears of maize in her hands; a sixth century sculpture from Copan of the god of maize, his head being an opening ear of maize; the god of maize of Peru, a bundle of actual ears supplying the mold for this tusked god, whose children are also shown.

Stirling, Matthew W.


Useful for its illustrations and general comments on the various contributions of the American Indians.

Sturtevant, E. Lewis.


WISSELMAN, CLARK. (114) AGRICULTURE; PRIMITIVE AGRICULTURE. Encycl. Social Sci. 1: 572-574. New York, Macmillan Co. 1930. Bibliography, pp. 598-599. See also articles on Irrigation, Migration, Nomads, Culture, and Anthropology. 


Agriculture of Particular Regions and Tribes

Aztec Agriculture

Butman, Carl Hawes. (118)
The unique irrigation system which the Aztecs were using when Cortez invaded Mexico in 1521.

Curran, C. H. (119)
"Revealing early acquaintance with many of our agricultural pests and therapeutic measures against so currently prominent a creature as the black widow spider."—Subtitle.

Hough, Walter. (120)
The civilization of the Mexican plateau was based on the agave.

Manchester, H. H. (121)
Gardening in the two Americas before the advent of Columbus; the part flowers played in Incaland and early Mexico; amusing movable gardens and how bird conservation began four centuries ago.

Mendizabal, Miguel O. de. (122)

Nuttall, Zelia. (123)
For a Spanish version, see "Los Aficionados a las Flores y los Jardines del Mexico Antiguo," In Memorias y Revista de la Sociedad Científica "Antonia Álzate" Mexico 43: 503-608, illus. (Septiembre-Diciembre 1924). (124)


Roberts, Frank H. H., Jr. (125)
Short description of ancient Aztec agriculture is included.

Safford, William Edwin. (126)
"Among the tributes paid to Montezuma by the pueblos of Mexico was a certain grain of ivory whiteness and more minute than a mustard seed, called by the Aztecs huanhtli. Eighteen imperial granaries were filled with it each year, each having a capacity of about 8,000 bushels."

The white-seeded amaranthus is identified with the ceremonial huanhtli of the Aztecs and with the "bledo" of Cabeza de Vaca.

Steffen, Max. (128)
The Azteken; die Mayas; die Chibchas; das Incarelch.
BIBLIOGRAPHY ON THE AGRICULTURE OF THE AMERICAN INDIANS

Thompson, John Eric.


Toro, Alfonso.


The sacred plants of the Aztecs and their influence on pre-Cortesian art.

Wright, Richardson.

THE STORY OF GARDENING FROM THE HANGING GARDENS OF BABYLON TO THE HANGING GARDENS OF NEW YORK. 475 pp., illus. New York, Dodd, Mead & Co. 1934.

Plants and gardens the conquistadors found, pp. 167-175; primitive corn planting, pp. 8-10.

See also items 2-5, 17-18, 20-22, 67, 82, 96, 109, 132, 211, 349, 354, 357, 373, 396, 412, 467, 637-668, 727-732, 755, 769, 774, 777, 779, 782, 797, 807, 820, 823.

CALIFORNIA

Kroeber, A. L.


Review by E. W. Gifford in Geog. Rev. 16: 238-239 (April 1926).

See also items 6, 301, 461, 517, 635, 640, 657, 666, 682, 702, 710, 718, 739, 752, 762, 786.

CARIBBEAN SEA AND CENTRAL AMERICA

Conzemius, Edward.


This Central American group is part Indian and part Negro, but many Indian customs are retained. Their agriculture is discussed under the subtitles "Customs and habits"; "Foodstuffs—preparation of cassava bread"; and "Other occupations, industry."


Domestic utensils, pp. 33-35; tools, pp. 35-38; cotton textiles, pp. 50-51; other handcrafts, pp. 52-54; domestication of animals and birds (indigenous animals and birds, bees, cattle, horses, plgs, fowl, dogs), pp. 57-60; agriculture (cassava, sweetpotatoes, yams, other vegetables, maize, beans, cacao, cactus, fruits, gardens), pp. 60-65; food preparation, pp. 88-91; narcotics, stimulants, etc. (tobacco, pepper, oils, etc.), pp. 91-95; nonfermented beverages, pp. 95-98; intoxicating beverages, pp. 98-101; diseases, pp. 118-126; bibliography, pp. 173-178.

Fewkes, Jesse Walter.


See especially Agriculture, pp. 50-53.

Morales Cabrera, Pablo.

PUERTO RICO INDÍGENA; PREHISTORIA Y PROTOHISTORIA DE PUERTO RICO; DESCRIPTIÓN DE LOS USOS, COSTUMBRES, LENGUAJE, RELIGIÓN, GOBIERNO, AGRICULTURA, INDUSTRIAS DEL PUEBLO TAINO DE BORIQUÉN, SEGÚN LOS CRONISTAS DE INDIAS EN LA ÉPOCA DEL DESCUBRIMIENTO DE AMÉRICA. 381 pp., illus. San Juan, Puerto Rico, "Imprenta Venezuela." 1932.

Treatise, with frequent quotations from early historians, on the natives of a section of Puerto Rico before and at the time of the Spanish conquest in the sixteenth century. See especially "industrias agrícolas," pp. 121-137, which discusses yucca, corn, potatoes, beans, and other products.
REYNOSO, ALVARO.
(Notas Acerca del Cultivo en Camellones.)
Una nueva edición, notablemente corregida y aumentada de Apuntes acerca de varios cultivos Cubanos. Hemos creído conveniente separar de esa próxima publicación lo que se refiere al cultivo de los tubérculos por los indígenas de Cuba y Haití, porque en ella no podíamos exponer ciertas consideraciones, mientras que, en la presente forma, es posible manifestarlas oportunamente con un fin determinado.

INCAN AGRICULTURE

BARRIENTOS, E.

BAUDIN, LOUIS.
"Cet article constituerà un chapitre d'un ouvrage qui paraîtra prochainement sur: L'Empire des Inka." Its contents are indicated by the following headings: La politique agraire; le partage du sol; le partage du bétail; l'exportation du mode de culture; les traces de propriété individuelle; bibliography, pp. 318–320.

(Paris Univ., Trav. et Mém. de l'Inst. d'Ethnol., 5.)

Discussion of the interpretations which have been given by various writers of the eighteenth and nineteenth centuries concerning the socialism of the Incas.

The economic organization of the Inca Empire, stressing the agrarian village-community, or ayllu, which was the basis of the economic and social structure of pre-Hispanic Peru. Extensive abstract by Phillip A. Means in Social Sci. Abs. 1: 8051 (November 1929).

BENNETT, WENDELL C.
The cotton and wool fabrics of the ancient Incas.

BONTHOUX, VICTOR ADOLPHE.

BUTTERFIELD, H. M.

[COLLIER, CHARLES.]
Incan agriculture, apropos of Charles Collier's trip to South America.

COOK, ORATOR FULLER.
The highly specialized agriculture of the ancient Peruvians considered in terms of three principal types or systems, namely, the more primitive milpa system in the lower valleys at altitudes of less than 5,000 feet, the terrace
Cook, Orator Fuller—Continued.

system in the intermediate or temperate valleys of the eastern Andes at altitudes between 5,000 and 11,000 feet, and the system in the higher valleys at altitudes of from 11,000 to 14,000 feet where the farming was done by human labor, facilitated by a peculiar implement for breaking the sod, which is described in detail. The illustration shows the cashrom or foot-plow of the Hebrides, from Mitchell's The Past in the Present, p. 113. Its survival suggests that northern Europe may have passed through a stage corresponding to the foot-plow agriculture of Peru.

Also in Pan Amer. Union Bul. 52: 160-166, illus. (February 1921). The pictures show the tacilla, the ancient instrument used by the Aztecs for turning the earth on the terraced farms of the Andes of Peru and Bolivia.


Plants domesticated before animals; agriculture indigenous in America; relative antiquity of domestication; unity of American agriculture; location of Maya civilization; endemic crop plants of the Peruvian region; native Peruvian plant names; list of names of domesticated plants in Peru; crop plants of extra-Peruvian origin; other centers of domestication; conditions of domestication in Peru; domestication of animals in Peru; agricultural arts in Peru; building of terraces and irrigation works; weaving of cotton and wool; astronomical determination of seasons; social organization and colonization; summary.

The illustrations include the following: terrace agriculture of ancient Peru; pigweeds as seed crops; a field of quinoa; cocaine shrub; a seed-bearing cassava; a cultivated lupine; oca (Oxalis tuberosum) roots; Peruvian potato varieties; roots of the Papa llios; an edible canna, a nasturtium root crop; a striped variety of anuyu; a sweetpotato in flower; roots of the ilacon; Inca storehouses.


There are 48 illustrations; among those of particular interest are the following: An artificial waterfall connecting two ancient irrigation ditches in the high coastal desert of southwestern Peru; wheat and barley fields of the slopes above the Urubamba Valley; one of the highest agricultural canals in the world; two views of plowing in Peru; llamas loaded with rock salt in a typical Peruvian plaza; a boy shepherd and his sheep near Chincheros, Peru; several views of staircase farms of the ancients; storehouses for the crops of the Incas; ear of Cuzco, the large-kernel corn of Peru; cuzco kernels; pigmy corn of the highest altitudes; a pile containing 16 potato varieties from one field; views of two other varieties of potatoes; coca-drying yard at Santa Ana; two views of coca plantations; a native Peruvian cotton; a tree tomato; a wild cherry tomato; a wild tomato of the eastern Andes.

See also the photographs of foot-plowing in Peru and of a flock of young alpacas in Hiram Bingham's "Further Explorations in the Land of the Incas" on p. 462 in the same number.
CONSTANTIN, J. (152)
Anomalies culturales des cereales des Andes du Peru; mais de Jala (Mexique); le maïs de Jala et des cereales des hautes Andes du Perou explication des anomalies; lien entre la taille et la duree de vegetation (mais); agriculture Peruvienne; culture de la pomme de terre au Peru et types sauvages.
— and BOISE, D. (153)
Bibliographical footnotes and fifteen figures in the text.
CRAWFORD, MORRIS DE CAMP. (154)
"The object of this paper is to give some idea of the technical side of the fabrics found in the graves of Coastal Peru. The nature of design and color will be considered only in this relation."
EATON, GEORGE F. (156)
Introduction; comparison of plant and animal foods; garniture of graves and contents of kitchen middens as evidence of flesh diet; groups of mammals represented (deer; dog; rodents; marsupials); note on ceremonial cannibalism.
ENOCK, C. REGINALD. (157)

GASCOIN, E. (158)
GUERRERO, J. C. (159)
State socialism in ancient Peru.
HARCOURT, RAOUl D' (160)
Technical discussion of Peruvian weaving.

ENSEUILLE, M. (161)
LES TEXTILES ANCIENS DU PEROU ET LEURS TECHNIQUES. 170 pp., illus. Paris, Les editions d'art et d'histoire. 1934.
Technical discussion, very well illustrated. Index bibliographique, pp. 163-166.
— and HARCOURT, M. (162)
LES TISSUS INDIENS DU VIEUX PEROU. 32 pp., illus. Paris, Albert Morancé. 1924.
Generalties, pp. 5-7; les matieres textiles, pp. 7-8; le filage, pp. 9-10; les fils, pp. 10-12; les teintures, pp. 12-13; les metres, pp. 13-14; les genres de tissus, pp. 14-20; les styles decoratifs, pp. 21-23; bibliography, p. 27.
Also issued by Brentano's with an English title-page.

HARDY, OSOOD. (163)
Note particularly the printed text on the abundant food supply of the Incas on the back of plate 4; the material on peasant and labor conditions, p. 8; and agriculture and architecture, pp. 9-11. There are 27 illustrations.
JESSUP, Morris K. (164)
The article holds that stones were fitted by grinding during construction.

JOYCE, Thomas Athol. (165)
SOUTH AMERICAN ARCHAEOLOGY; AN INTRODUCTION TO THE ARCHAEOLOGY OF
THE SOUTH AMERICAN CONTINENT WITH SPECIAL REFERENCE TO THE EARLY

KELL, Walter V. (166)
INDIANS DISCOVERED NITRATE OF SODA IN SOUTH AMERICA; NOW USED FOR ONE

LANGLOIS, Général. (167)
The civilizations of the coast and the mountains are treated separately.

LATOHAH, Ricardo E. (168)
LOS ANIMALES DOMÉSTICOS DE LA AMÉRICA PRECOLOMBIANA. Santiago del
Chile Museo de Etnología y Antropología de Chile Publicaciones 3(1): 1-199. 1922.
Mainly animals used by the Incas.

KELL, Walter V. (166)
ATACAMEÑO ARCHAEOLOGY. Amer. Anthrop. 38: 609-619, illus. October-
December 1936.
Agriculture and irrigation of a pre-Incan tribe of Peru.

McBRIDE, George McCutchen. (170)
THE AGRARIAN INDIAN COMMUNITIES OF HIGHLAND BOLIVIA. Amer. Geog. Soc.
Res. Ser. 5, 27 pp., illus., maps. New York, Oxford Univ. Press. 1921.
Bolivia an agricultural country; distribution of the population; attachment to the soil; organization of the communities; common lands; modifications introduced by the Spaniards; modifications introduced by the Bolivian Republic; distribution of surviving communities; department of La Paz; department of Oruro; department of Potosí; department of Chuquisaca; department of Cochabamba; number of Indians living in communities; extent of community holdings; present tendencies.

MEANS, Philip Ainsworth. (171)
ANCIENT CIVILIZATIONS OF THE ANDES. 586 pp., illus., maps. New York,
Charles Scribner's Sons. 1931.
See pp. 12, 20-21, 36-37 for material on agriculture; and pp. 11, 19-22,
309-317, 323 for material on diet. Bibliography, pp. 545-573. Review by

MEANS, Philip Ainsworth. (172)
10: 176-181 (April 1919).

MURDOCK, George Peter. (174)
The article includes discussion of the types of agriculture and irrigation.
Same condensed under the title "The Incas were Communists" in Lit. Digest
Norton, Henry Kittredge. 
Comparison of past and present ways of life in Peru.

Olson, Ronald L. 
The succession of civilizations in the Andes—Nazca, Early Chimú which led over to Tiahuanaco, Epigonal, Chavín (the last two probably derivatives of Tiahuanaco), Late Chimú (derived from Chavín), Ica and Inca (derived from Ica). There are 10 pictures, a map of the Incan Empire, and a chart of the sequence of cultures. Summary by L. L. Bernard in Social Sci. Abs. 3: 14976 (October 1931).

Poindexter, Miles. 
THE ATAC-INGAS. 2 v., illus., maps. New York, Horace Liveright. 1930. 
"The first volume records... observations at many of the more famous ancient sites and summarizes many of the facts about the early Peruvian cultures, religion, architecture, implements, weaving, music, and agriculture." Reviews by J. W. Gregory in Geog. Jour. 78: 555-557 (December 1931) ; Hispanic Amer. Hist. Rev. 11: 222-234 (May 1931).

Roosevelt, Cornelius Van S. 
Some coast walls; curious ruins near Casma; the Santa Valley and the "Great Wall"; en route to Chavín; the ruins of Chavín.

Taoliani, G., and Wiazmitnow, A. 
A lecture on the dyestuffs used by the Incas.

Troll, C. 
DIE GEOGRAPHISCHEN GRUNDLAGEN DER ANDINEN KULTUREN UND DES INCAREICHES. Ibero-Amer. Arch. 5: 258-294, maps. October 1931.
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Ugarte César Antonio. 
Note particularly the conclusions on pp. 313-316. Eleven of the 17 pictures are of ruins of the Inca period.

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Américanistes de Paris Jour. (n. s.) 10: 43-45, 1913.

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VERRILL, ALPHEUS HYATT.

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1930.

Pre-Incan aborigines engineered a "modern" highway 4,000 miles through
the South American Andes. "This highway did not link the two continents
but it linked several great nations; it was over 4,000 miles in length. . . .
The International Highway was the 'King's Road' of the Incas. . . . From
Quito in Ecuador, to beyond Tucuman in Chile, the Incan Highway followed
the general lines of the Andes. At intervals, side roads branched off. A
second road 25 feet in width, . . . followed the shore line from Ecuador
to Chile."

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the Huancayo fair; the weekly fair (its ancient origin; twofold function
of the market); the annual fair (seasonal and religious origin; festivals in
ancient Peru; Christian ritual and pagan festival; other aspects of the fair;
early connection with trade and transportation; location of the commercial
fairs; fairs in transition zones; present conditions; relation to North Ameri-
can commerce).

See also items 2-5, 9, 14, 17-18, 20, 22, 47, 49, 67, 80-82, 86, 90, 102, 121, 128, 383,
404, 428-430, 441, 444, 446, 449, 686, 694, 759-760, 767, 800.

IROQUOIS AGRICULTURE

BATES, ERI A.


DOUGLAS, FRÉDÉRIC H.


HERIOTT, WILLIAM.

ABORIGINAL AGRICULTURE IN SOUTHWESTERN ONTARIO. Waterloo Hist. Soc.

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Based on Candolle.

PARKER, ARTHUR C.

THE ARCHEOLOGICAL HISTORY OF NEW YORK. N. Y. State Mus. Buls. 235-238,
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title "Aboriginal Geography of New York State and City" in Geog. Rev. 13:
133 (January 1923).

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STITES, SARA HENRY.


Note particularly the "Sketch of the Economic Systems of the North Ameri-
can Indians," and ch. 1, The Environment of the Iroquois, pp. 13-19; ch. 2,
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MAYAN AGRICULTURE

BABELOU, JEAN.
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Aperçu bibliographique, pp. 247-250.

BLOM, FRANS.
Monetary units included the almond and cacao bean, and much of the trade was in agricultural products. Reprinted from Tulane Univ., Middle Amer. Res. Ser. Pub. 4.

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COOK, ORATOR FULLER.

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"Tree rings of the Southwest are now expected to solve the puzzle of the Mayan calendar, enabling archeologists at last to date the ancient civilization that flourished in the American tropics before Columbus."

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Agriculture is one of the phases of cultural evolution considered.

GANN, THOMAS WILLIAM FRANCIS, AND THOMPSON, J. ERIC.

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A popular account with very little on agriculture.

HOFFMANN, ELEANOR.
Present Indian conditions in Guatemala.
Kirk, William.  (204)
SOCIAL CHANGE AMONG THE HIGHLAND INDIANS OF GUATEMALA. Sociol. and

The agriculture of the Guatemalan Indians is changing with the rest of
their culture.

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263, illus., maps. (Washington, June 1940).

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American civilization, and left sculptured monuments that record their history
since before the dawn of the Christian era.”

Morley, Sylvanus Griswold.  (206)
UNEARTHING AMERICA’S ANCIENT HISTORY; INVESTIGATION SUGGESTS THAT THE
MAYA MAY HAVE DESIGNED THE FIRST ASTRONOMICAL OBSERVATORY IN THE
NEW WORLD IN ORDER TO CULTIVATE CORN. Natl. Geog. Mag. 60: 90–126,
illus. July 1931.

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tograph and one diagram of Maya ruins.

Möbley, Stanford Gris.  (206)
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MAYA MAY HAVE DESIGNED THE FIRST ASTRONOMICAL OBSERVATORY IN THE
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Popenoe, Wilson.  (208)

A study of the plants for foodstuffs and other uses cultivated by the
ancient Mayas in the Copan River Valley of western Honduras under the
following headings: Cereals and vegetables; fruits; beverage plants; plants
used for seasoning and flavoring; fiber plants; plants used for coloring and
dyeing; fence and hedge plants; miscellaneous useful plants.

Riley, Robert M.  (209)
ANCIENT MAYAS BURNED THEIR FORESTS; A PRACTICE THAT MAY HAVE BEEN THE
SOURCE OF THEIR DECADENCE. Amer. Forests 38: 442–443, 490, illus. August
1932.

Roys, Ralph Loveland.  (210)
THE ETHNO-BOTANY OF THE MAYA. 359 pp. New Orleans, La., Dept. Middle
Pub. 2.)

Annotated list of Maya plant names, pp. 213–216; annotated list of Maya


Spinden, Herbert.  (211)
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Distribution of agriculture, pp. 67–71; influence of agriculture on Mayan
culture, p. 73; invention of agriculture, pp. 45, 51–53, 67, 251; spread and

Steggerda, Morris.  (212)
PLAGUES OF LOCUSTS, DROUGHT, MAY HAVE DRIVEN OUT MAYAS. Sci. News Letter

“New evidence indicates great cities may have been abandoned in weari-
ness over battling plant pests.”—Subtitle. A summary of suggestions by
Morris Steggerda of the Carnegie Institution.
Indians of Guatemala, in spite of close physical contact with civilization, retain their ancient cultural patterns.

**Tax, Sol.**


**Teeple, John E.**


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**Babcock, Willoughby M.**


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**Balmer, F. E.**

*The Farmer and Minnesota History.* Minn. Hist. 7: 190–217. September 1926.

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**Miller, Fred.**


This article lists the various methods by which the Indians caught fish; it also describes the primitive hooks, spears, and nets made by the red men, and how they were used, together with the methods of preserving the fish. With the article appear pictures of hooks, spears, floaters and other Indian fishing equipment found in the collections of the Minnesota Historical Society.

**Weyl, Charles G.**


Description of specimens of cloth made by the early Indians of Wisconsin and Minnesota.
BIBLIOGRAPHY ON THE AGRICULTURE OF THE AMERICAN INDIANS 35


A report based on the collections of Jacob V. Brower and the field surveys and notes of Alfred J. Hill and Theodore H. Lewis. The Dakota Indians, pp. 1-559; The Ojibwa, pp. 580-731. See especially pp. 491-497 on the agriculture, ornaments and food of the Dakota (agricultural implements; vegetable foods not agricultural—rice, bulbous roots, mdo, Indian turnip, berries, maple sugar, tripe-de-roche); pp. 518-559 on the history, treaties, missions, reservations, of the Dakota in Minnesota; pp. 592-596 on the food of the Ojibwa (wildrice; waub-es-see-pin; maple sugar; berries; tripe-de-roche or reindeer moss); and pp. 616-636 on the Ojibwa treaties ceding lands in Minnesota.

See also items 482, 484-489, 492-494, 545, 564, 592, 601, 664-665, 719, 815-816.

MISSOURI RIVER REGION


Social and economic organization, including a brief account of agriculture.


Agriculture, pp. 407-408, 463-464; food, pp. 581-582; horses, p. 412; table of roots, berries, animals, birds, eaten by the Indians of the Upper Missouri, p. 583; paints and dyes, p. 591; bibliography, pp. 627-628.


"Besides the wild fruits, nuts, tubers, and seeds which were regularly harvested from the wild growths by the tribes of Nebraska, they had also certain crops which they regularly cultivated. They planted fields of corn, beans, squashes and pumpkins, gourds, watermelons and tobacco."


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OLD ASSINIBOIN BUFFALO-DRIVE IN NORTH DAKOTA. Indian Notes 1: 204-211, illus. October 1924.

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For material on agriculture, see 1: 251-254, and also scattered paragraphs on pages indicated in the index under agriculture. For various early foods, see 1: 247-251; for useful plants, see 2: 166-191.


Introduction of the gun and fur trade, of the horse, and of the railroad brought the Plains Crees three distinct periods of exuberant activity.
Prescott, Philander. (233)
The author’s report as superintendent of farming for the Sioux.

Stbley, George. (234)

Strong, W. D. (235)

Will, George Francis. (236)

Wilson, Gilbert Livingstone. (237)
Agriculture of the Hidatsa Indians; An Indian Interpretation. 129 pp., illus. Minneapolis, Univ. Minn. Press. 1917. (Minn. Univ. Studies in Social Sci. No. 9.)
This study of the economic life of the American Indian is based largely on data obtained from an expert agriculturist of the Hidatsa tribe, an old woman born about 1839. It is not “an account merely of Indian agriculture. It is an Indian woman’s interpretation of economics; the thoughts she gave to her fields; the philosophy of her labors.” The material was collected by the author during the summers of 1912–1915 at Fort Berthold reservation.


Wissler, Clark. (238)
Pp. 29–62 deal with food habits and describe methods of cooking, hunting, types of food, and utensils used. Bibliography.

Woodruff, K. Brent. (239)
See also Items 42, 332, 399–401, 680, 743.

NEW ENGLAND

Jackson, Eric P. (240)
The early uses of land by the Indians, pp. 69–74.

Kinnicutt, Lincoln N. (241)
Massasoit, Tisquantum (Squanto), Hobomok and what they did for Plymouth. Touches very briefly on Squanto showing Pilgrims how to plant corn.
WILLOUGHBY, CHARLES C. (242)


See also the author's chapter on the Wilderness and the Indian in the Commonwealth History of Massachusetts, edited by Albert Bushnell Hart, 1: 127-158 (New York, 1927).

See also items 2-3, 6, 17, 21, 47, 58, 353, 364, 370.

SOUTHEASTERN UNITED STATES

BATTLE, HERBERT B. (244)

Introduction (oils and fats of animal origin; oils and fats of vegetable origin), pp. 171-175; preparation of oils and fats (by rendering; by extraction; by pressing), p. 175; ancient preparation of the oils, pp. 175-177; how the oils and fats were used by the natives (as food; in paints; in leather making or the treatment of skins; for bodily health; in hairdressing; for the rubbing and polishing of ornaments and implements), pp. 177-182; yield of oil from nuts, p. 182.

GRAY, LEWIS CECIL. (245)

See ch. 1, Agriculture before the Coming of the English, pp. 3-13, with discussion on the influence and contributions of native agriculture in the South Atlantic section, native agriculture in the lower Mississippi Valley, and early agriculture of Spanish Florida. See also the pages indicated in the index under names of Indian tribes; bibliographical introduction, pp. 945-951; and list of works cited, pp. 951-1016.

JONES, CHARLES COLCOCK. (246)

Medicinal plants, p. 34; tenure of property, p. 40; agricultural pursuits, p. 40; town plantations and private gardens, p. 40; public granaries, p. 41; animal and vegetable food, p. 42; agriculture and agricultural implementations, pp. 296-320.

SWANTON, JOHN REED. (247)

Agriculture, pp. 691-692; most popular medicines, pp. 710-711. See also pertinent items in the index.


The social and governmental experiment undertaken or evolved by the Creek Indians who formerly occupied most of the territory of the present States of Georgia and Alabama. Several paragraphs on their agriculture are included.
SWANTON, JOHN REED. (250)
Notes on the agriculture of the Chitimacha, pp. 345-346; Iberville's note on the agriculture of the Houma, p. 286; importance of agriculture among the Natchez, pp. 73-79; Pascagoula agriculture, p. 304; beans, pp. 77, 290, 303, 345; cooking, pp. 303, 315, 357; corn, pp. 73-76, 217, 286, 303, 304, 345, 346, 355, 358; fruits, pp. 77, 222, 226, 303, 317, 346; hominy, pp. 286, 303; medicines of Natchez, pp. 30-36; tobacco, pp. 79, 146, 154, 157, 285-287, 356; turkeys, pp. 73, 289, 317, 329; vegetal foods, pp. 317, 345. See also other pertinent subjects in the index.

Agriculture, pp. 443-444. Bibliography, pp. 471-472. See also other pertinent items in the index.
See also items 6, 21, 329, 466.

SOUTHWESTERN UNITED STATES

AMSDELL, CHARLES AVERY. (252)
NAVAHO WEAVING: ITS TECHNICAL AND HISTORY. Foreword by Frederick Webb Hodge. 261 pp., illus. Santa Anna, Calif., Fine Arts Press in Cooperation with Southwest Mus. 1934.

ARNOLD, OREN. (253)
"The empire of the Canal Builders—the Forgotten Ones, as the Indians call them—embraced the better parts of the Salt and Gila Valleys in Arizona, a richly cultivated region today as it was in prehistoric times. With the most primitive implements, the Canal Builders made over two hundred miles of canals, reclaimed vast areas of desert and built temples, houses and fortresses."

BARNES, WILL C. (254)
Interesting, especially for its photographs of the cliff dwellings of southwestern United States.

BARTLETT, KATHARINE. (255)


BELL, WILLIS H., and CASTETTER, EDWARD F. (257)

BEMIS, M. E. (258)
The agriculture of the ancient cliff dwellers.

BOWERS, GEORGE BALLARD. (259)
The cliff dwellers of the American southwest.
BRAND, DONALD D.

BRYAN, BRUCE.

"One of the most amazing scientific achievements of recent years was the discovery and working out of what has come to be known as the Tree Ring Calendar. Approached at first as a useful and desirable means of studying climatic conditions of the past in an endeavor to provide some reasonable method of forecasting those of the future, this research into the indelible records of the Arizona pines led into a most unexpected field. Its far-reaching results filled the scientific world with enthusiastic astonishment."—p. 10.

BURG, WALTER.

CASTETTEB, EDWARD F., and BELL, WILLIS H.

BELL, WILLIS H., and GROVE, ALVIN R.

Introduction, pp. 5-10; early history, pp. 10-12; distribution of important species of agave in the southwest, pp. 13-27; agave as food, pp. 27-60; agave as a source of beverage, pp. 60-64; agave as a source of fiber and woven objects, pp. 64-73; miscellaneous uses of agave, pp. 73-77; summary, pp. 78-84; bibliography, pp. 85-92.

and OPLER, M. E.

and UNDERHILL, RUTH M.

CLARK, S. P.


Introduction; country and the climate of the Hopi; effect of neighboring tribes on the life of the Hopi; Hopi agriculture and the selection of fields (planting methods; protecting the crop; harvesting and storing the corn; Hopi irrigation; Hopi farming at Moenkopi; fruits in the Hopi country; Zuni Indian gardening; Zuni livestock); the Navajo Indians (Navajo livestock; weaving blankets); prehistoric irrigation; the Papago Indians and their agriculture (harvesting and threshing the wheat; grinding the wheat into flour; storing grain; livestock of Papago Indians); conclusions.

The illustrations show the following: Hopi Indian corn field; a Hopi Indian bean and corn field; corn piled in a house; a Zuni Indian garden; a flock of Navajo Indian sheep; a Navajo Indian homemade cultivator; a Papago Indian plow made from a single piece of mesquite wood; Papago Indians cooperating in harvesting wheat; a Papago Indian threshing floor; winnowing wheat; Papago Indian custom mill 75 miles southwest of Tucson; granaries made of woven grasses; Papago Indian cattle.
COLTON, HABOLD S. (269)
THE RISE AND FALL OF THE PREHISTORIC POPULATION OF NORTHERN ARIZONA.

CUMMINGS, BYRON. (270)
“An abundance of yucca . . . is found in all stages of preparation for
spinning. . . . Likewise bundles of cotton, some with the seed still clinging
to the fibres, have been found that show the source of the yarn that has
been woven into various forms of cloth.” References, p. 371.

CUSHING, FRANK H. (271)
September, October 1882.
A travel narrative, dealing with the Havasupai or Kuhnklke tribe of
Indians. This tribe is related to the Zunis. Their home was in Cataract
Creek Canyon which is a branch of the Grand Canyon of the Colorado, and
is located about 115 miles north of Prescott, Ariz. The visit took place in
1880. Agriculture is mentioned.

DOUGLASS, ANDREW ELLIOTT. (272)
THE SECRET OF THE SOUTHWEST SOLVED BY TALKATIVE TREE RINGS. Nati.
Commented on under the title “‘Dating’ Old America; Indians Battled
Drought In Time of Crisis 600 Years Ago,” in Lit. Digest 121 (15) : 29 (Apr.
11, 1936).

EASTWOOD, ALICE. (273)
The uses of some of the plants of the region as well as the plants formerly
cultivated there.

ESTABROOK, EMMA FRANKLIN. (274)
GIVERS OF LIFE; THE AMERICAN INDIANS AS CONTRIBUTORS TO CIVILIZATION. Fore-
word by Edgar L. Hewett. 101 pp., illus. Albuquerque, New Mex., Univ.
New Mex. Press. 1931.
The Pueblo Indians are used as the medium of the author’s survey, because
their culture, which is in general typical, has come down to the present day
with only slight modifications and so can be easily studied. See especially
the chapter on the American Indian as plant experimenter and agriculturist,

FLOOD, FRANCIS A. (275)
FARMING, A WAY OF LIFE. Farmer-Stockman 50: 663, 672, illus. Nov. 15,
1937.
Popular account of Indian agriculture in the Southwest. Illustrations of
Navajo women grinding corn on the metate, Indian vegetables ready to be
placed in storage pit, and the cliff dwellings of Pueblo Indians. Also printed
with the title “Where Farming Began” in Ind. Farmer’s Guide 94: 36, 46,
51, illus. (Jan. 15, 1938).

GILMORE, MELVIN R. (276)
The results of an archaeological exploring expedition in the northwest part
of Arkansas and the southwest part of Missouri.

HAAS, WILLIAM H. (277)
December 1926.
The importance of food, pp. 172-175; the importance of corn, pp. 177-178;
location of agricultural lands, pp. 185-188; the products of the region, p. 198;
as an irrigation farmer, p. 210; area of crop lands, pp. 210-212; food require-
ments, pp. 214-215. The map by Omar A. Turney on p. 211 shows the pre-
historic irrigation canals in the Salt River Valley in the vicinity of Phoenix.
HAEBERLIN, HERMAN KARL.  

HAIBETH, ODD S.  
PREHISTORIC RIGRATION IN CENTRAL ARIZONA. Masterkey (Southwest Mus., Highland Park, Los Angeles, Calif.) 5: 165-175, illus. January 1932.  

HALSHEF, OOD S.  
PREHISTORIC RIGRATION SYSTEMS REVEALED BY AERIAL SURVEY IN ARIZONA. Prof. Engr. 16 (6): 7-8, 26, illus. June-July 1931.  

HAMILTON, J. B.  

A grove cut in the face of a cliff near Pueblo Bonito, Chaco Canyon National Monument.  

HABGRAVE, LYNDON L.  
Summary by Forrest Clements in Social Sci. Abs. 4: 4918 (April 1932).  

HARRINGTON, M. R.  


ANOTHER ANCIENT SALT MINE IN NEVADA. Indian Notes 3: 221-232, illus. October 1926.  

Pueblo Grande de Nevada, the ruins of a village of 15 or 20 centuries ago, belonging to "about the close of the pre-Pueblo period and the beginning of the early Pueblo period," near St. Thomas, Nev. The article refers to the evidences of farming, cotton growing, weaving, dyeing.  

HOEDE, F. W.  
From notes made in 1887-1888 while the author was a member of the Hemenway Archeological Expedition, operating in the Southwest under the directorship of Frank Hamilton Cushing.  

HODDER, CHARLES F.  
The granaries of the Indians in the West, particularly Arizona and New Mexico. The illustrations show a Chemehuevi Indian reclining under a grass bower, watching his cornfield; a Chemehuevi granary; and a granary on top of a Yuma Indian's house.  

HUGH, WALTER.  
The deer, antelope, and rabbit formed the chief meat supply, while maize and squash, and, later, beans were the chief cultivated plants.  

"With wonderful realism the . . . article raises the curtain of time upon the home life of a people who may have been extinct before Columbus discovered America."  
The illustrations show ears of cliff-dweller corn strung on a strip of yucca leaf and hung up for the winter store, a fire bowl, a sandal made from leaves of a yucca plant, and a miller's grinding stone and handstone.
JOHNSON, Gaylord.


The wool sashes and other belongings of the Basket Makers No. 3, found by the party of archeologists under the direction of the Carnegie Institution of Washington, D. C.

JUDD, Neil M.


KIDDER, Alfred Vincent.

AN INTRODUCTION TO THE STUDY OF SOUTHWESTERN ARCHEOLOGY, WITH A PRELIMINARY ACCOUNT OF THE EXCAVATIONS AT PECOS. 151 pp., illus., maps. New Haven, Pub. for the Dept. of Archaeol., Phillips Academy, Andover, Mass., by the Yale Univ. Press. 1924. (Southwest. Expedition Papers, No. 1.)

Material on Indian agriculture is included. Bibliography, pp. 156-157.


KNIFFEN, Fred B.


Introduction (the natural setting), pp. 43-44; the cultural stages in the Colorado delta, p. 45; the primitive stage, pp. 46-57.

MACClARY, John Stewart.


The prehistoric cliff dwellers of the Southwest. The illustrations show a granary in which corn and beans were stored against lean years, dams thrown across drainage channels, forming terraces for water conservation, and a group of large earthenware jars used for holding the fruits of the harvest; the mouths of the jars were sealed by stone lids mudded in place.

Article by same author with same title in World Rev. 5: 92-93, illus. (Oct. 24, 1927). It relates to the agriculture of the Basket Makers of the region "within a radius of 200 miles from the point where Colorado, Utah, New Mexico, and Arizona meet." The illustrations show large earthenware jars used in preserving fruit and a granary in which corn and beans were stored.

MARKLEY, Max C.


The disappearance of agriculture from the eastern side of the White Mountains in southeastern New Mexico during pre-Spanish times is explained by the use of archaeology.

MATTHEWS, Washington.


Dyeing, weaving processes, and articles woven.
McGee, W. J.  
"A few observations and generalizations made incidentally in the course of an expedition through the little-known region in Arizona and Sonora (Mexico) called by Spanish Americans 'Papaguera,' or land of the Papago Indians... In part the observations recorded herein pertain to subjects concerning which no expert knowledge is claimed; insofar as they relate to plants and animals they are merely such as any intelligent traveler through a region of pronounced peculiarities might be expected to make; but the observed relations of plants, animals, and men, among each other and to their common environment, were studied with care and generalized with some fullness."

Mitchell, Guy E.  
The photograph shows an ancient Indian mill near Yosemite National Park, Calif.

[McProins, John H.]  
TREE RINGS. Science (n. s.) v. 81, No. 206, Sup. Mar. 8, 1933.  
By the use of tree rings archaeologists at the University of Arizona hope to date diseases that plagued prehistoric Americans of the Southwest.

Ray, Cyrus N.  
Discoveries at the Gibson Site, Tex., may indicate that certain grinding implements were invented during pleistocene times.

Reagan, Albert B.  
Stone granaries on certain Arizona and Utah sites.

Russell, Franklin.  
The food supply, pp. 69-83, with paragraphs on preparation of food, plants used for food, medicinal plants, and animals used for food; domestication of animals, pp. 84-86; agriculture, pp. 86-92, with paragraphs on irrigation, division of labor, cereals, and vegetables; agricultural implements, pp. 97-99; household utensils, pp. 99-102.

Setzler, Frank M.  
A PREHISTORIC BREWERY. Science (n. s.) v. 87, No. 2260, Sup. June 24, 1933.  
The cave in the Big Bend region of Texas, believed to have been a ceremonial brewery, where sotol, a desert lily, was converted into an alcoholic drink.

Stewart, Guy R.  
Summary of the observations of Guy R. Stewart of the U. S. Soil Conservation Service in the Southwest.

Sweet, Stuart L.  
"The remarkable story of an ancient reclamation system recently discovered that is solving a modern problem in water conservation in the Mesa Verde National Park." Illustrations show irrigation dams, the great cliff palace of the Mesa Verde, and pictographs on the walls of one of the Mesa Verde canyons.

Literature cited, p. 416.
Thackery, Frank A., and Leding, A. R.


The use of its fruit and other cactus fruits by the Indians.

Thoburn, Joseph B.


Prehistoric irrigation works in Arizona and New Mexico.

Turney, Omar A.


The prehistoric canals in the Salt River Valley.

Wallace, Dan A.


The agriculture of the Pueblo culture period of the American Southwest, with special attention to irrigation at Casa Grande in Arizona.

See also items 3, 5-6, 18, 37, 344, 391, 403-411, 519, 556, 560-561, 602, 697.

VIRGINIA

Bruce, Philip Alexander.


Bushnell, David L., Jr.


Coming of the colonists; evidence of an early period of occupancy; sites and the distribution of various objects; the sources of Hardware River; the Berkeley cache; hunting grounds between the junction of the branches of the Hardware River and the mountains.

Maxwell, Hu.


Note especially pp. 79-86 on land cleared for agriculture. Bibliographical footnotes.

Willoughby, Charles C.


Agriculture and food in general, pp. 82-86.

See also items 8, 9, 17, 21, 47, 58, 245.

WISCONSIN

Brown, Charles E.

CHECKLIST OF WISCONSIN INDIAN IMPLEMENTS. Wis. Archeol. (n. s.) 8: 81-94. April 1929.

Sixty-three classes of stone implements, 36 classes of copper implements, 100 classes of silver, lead, bone and other types, and 62 types of wooden implements.
BIBLIOGRAPHY ON THE AGRICULTURE OF THE AMERICAN INDIANS

Brown, Charles E.

Hibbard, Benjamin Horace.
Also in Mag. Hist. 1: 97-104. February 1905.

Hoffman, Walter James.

Hibbabd, Benjamin Horace.

Keesing, Felix M.


Packe», B. G.

Schweed, Charles G.

Smith, Huron Herbert.

Introduction, pp. 11-14; Forest Potawatomi History, pp. 14-23; Material Culture, pp. 23-24; Religion, pp. 24-31; Potawatomi Ethnobotany (vegetal medicines, medicinal materials, vegetable foods, vegetable fibers, miscellaneous uses of plants), pp. 32-124; Conclusion, pp. 124-125; Authorities Quoted, pp. 126-127; Finding List of Plants (by scientific names; by English names; by Potawatomi names), pp. 128-154.

The Forest Potawatomi of northern Wisconsin are a woodland-dwelling Algonkian tribe closely related to the Ojibway of western Ontario, whom they closely resemble in mode of life.

Nordenskiöld, E.

A collection of references to bee culture in pre-Columbian America and published observations of the author upon apiculture among contemporary South American Indians. The map indicates the distribution of the custom. Index bibliographique, p. 182.

See also item 134.

Specific Crops and Animals

Bees

Anonymous.

Brief account of the corn found by W. E. Meyer of the U. S. Bur. Amer. Ethnol. in Indian graves in Davidson County, Tenn.
ANONYMOUS.
A brief sketch in the Boys' Corner section.

ALBES, EDWARD.
Note pp. 33-42 and the 16 illustrations.

ATKINSON, ALFRED, and WILSON, M. L.
Origin of corn; corn growing of the Northeastern Indians; corn growing of the North Central Indians; corn growing of the Upper Missouri Indians (the Arikara; the Mandan; the Hidatsa); history of early Montana corn growing. Part 3, Classification and Variety History, also has pertinent facts. Bibliographical footnotes.

BATES, ERL A.
IROQUOIS GOLD OR MAIZE. Cornell Countryman 20: 7-9, illus. October 1922.
The picture of the Indian corn house shows a mortar, two baskets of sieves, and corn-carrying basket, "the grandfather of our pack basket."

BEAUCHAMP, W. M.

BEDE, AARON MCGAFFEY.
LARGE INDIAN CORNFIELDS IN NORTH DAKOTA LONG AGO; AND AN INDIAN DRAMA PETITE FOR SCHOOL CHILDREN. 24 pp., illus. [Bismarck, N. Dak., Tribune Print. 1914.]

BINGAB, HARVEY HOWARD.
Corn and the Indian; kinds of corn grown by the Indians; primitive seed-testing methods; primitive corn-planting methods; Indian cornfields; primitive tools; plants as indicators of the season; seed selection and storing; Indian corn foods; primitive and modern methods of culture.
The illustrations show the types of corn raised by the Indians of the Southwest, an Indian's corn-husking pin made of bear bone, and a scraper made from a deer's jaw and used by the Iroquois Indians for removing green corn from the cob.
Also issued as Yearbook Separate 776. Also in Dakota Farmer 39: 1596-1599 (Oct. 15, 1919); and in abbreviated form in Hoard's Dairyman 58: 380-381, 384-385 (Sept. 26, 1919).

BUBLISON, W. L.

C.
INDIAN MEAL. Fraser's Mag. 30: 561-563. May 1849.
Also in Littell's Living Age 22: 265-267 (Aug. 11, 1849). Indian corn as an article of food.
CASSIDY, LOUISE LOWBEE. (343)
AMERICA'S ABORIGINAL CORN BELT; PUEBLO INDIANS WERE CORN GROWERS FIVE THOUSAND YEARS AGO. WALLACE'S FARMER 51: 1471, 1481, ILLUS. NOV. 12, 1926.
The illustrations show an ancient wooden harrow found in a New Mexico village and a pile of many-colored ears of Indian corn drying in a Pueblo dooryard.

COLLINS, GUY N. (344)
A DROUGHT-RESISTING ADAPTATION IN SEEDLINGS OF HOPI MAIZE. JOUR. AGR. RES. 1: 293-301, ILLUS. JAN. 10, 1914.
Introduction, p. 293; morphology of the maize seedlings, pp. 293-295; germination of Navajo maize, pp. 296-298; description of root system, p. 298; field studies of pueblo varieties of maize, pp. 298-300; conclusions, pp. 300-301; literature cited, p. 301.
A study of the maize grown by the Hopi, Zuni, and Navajo Indians of New Mexico and Arizona, bringing to light an adaptive character that promises to be of economic importance in dry regions where germination is uncertain.

A FOSSIL EAR OF MAIZE; FIRST TANGIBLE EVIDENCE OF THE EXISTENCE OF INDIAN CORN IN GEOLOGIC TIMES. JOUR. HERED. 10: 170-172, ILLUS. APRIL 1919.
The illustration shows fossil maize compared with modern maize.

NOTES ON THE AGRICULTURAL HISTORY OF MAIZE. AMER. HIST. ASSOC. ANN. RPT. (1919) 1: 409-429.
Much material on corn among the Indians.

THE ORIGIN OF MAIZE. WASH. ACADEMY SCIENCE JOUR. 2: 520-530. DEC. 19, 1912.
Supplementary statement by the same writer, "Maize: Its Origin and Relationships," in the same publication, 8: 42-43 (Jan. 19, 1918).

PUEBLO INDIAN MAIZE BREEDING; VARIETIES SPECIALY ADAPTED TO ARID REGIONS DEVELOPED BY HOPIS AND NAVAJOS; THEIR WORK NOT SUFFICIENTLY APPRECIATED; PROBABLY MUCH YET TO BE LEARNED FROM THEM. JOUR. HERED. 5: 255-268, ILLUS. JUNE 1914.
The illustrations include a view of a Zuni plantation of maize in Arizona; one of a field at the base of the first Hopi mesa, near Polacca, Arizona; a close-up of a stalk of maize, the single ear being more than one-half the height of the entire plant; and a single plant of Navajo maize with the leaves and husks removed grown under irrigation at Shiprock, N. Mex.

CURRELLY, C. T. (349)
INDIAN CORN NOW FEEDS THE NATIONS. FARMER'S ADVOCATE 64: 1819, 1826, ILLUS. DEC. 12, 1929.
"The American Indian was not so much a warrior and hunter as a farmer who has made an outstanding contribution to the agricultural progress of the world."—Subtitle.
The illustrations include views of Indian corn from the southwestern United States about 1,000 years old, now in the Royal Ontario Museum, and a pottery figure of a Mexican god with ears of corn represented in his headdress, about 1,000 years old, and now in the Royal Ontario Museum.

CUSHING, FRANK HAMILTON. (350)
ZUNI BREADSTUFF. 673 PP., ILLUS. NEW YORK, MUSEUM OF THE AMERICAN INDIAN, HEYE FOUNDATION. 1920. (INDIAN NOTES AND MONOG., V. 9.)
CUSHING, FRANK HAMILTON—Continued.

Awkward Suitors; 9, Ta-a J-ta-we, or the “Food of the, Seed of Seeds”; 10, He-we J-ta-we, or the Waffer Foods; 11, Khia J-ta-we, or Wheat Food; 12, Hu-mu-a Kla-na-kwe, or the Crooner Bands; 13, The Story of the Younger Hunter; 14, How He Learned to Hunt; 15, How He Was Divorced; 16, How He Twice Returned; 17, About Some Indian Meals; 18, More Indian Meals; 19, Corn Dances and Festivals.

The contents of this book were first published as a series of articles in the Millstone of Indianapolis, a trade magazine that long since ceased publication, in its issues extending from volume 9, January 1884, to volume 10, August 1885. Later an attempt was made to reprint the articles in condensed form in Milling, of Chicago, but only the first nine chapters thus appeared, extending from volume 3, No. 2, July 1893, to volume 4, No. 4, March 1894, when their publication ceased. Review by A. L. Kroeber in Amer. Anthrop. 23: 479 (October–December 1921).

DAVENPORT, HELEN W.

De KRUIF, PAUL HENRY.
HUNGER FIGHTERS. 377 pp., illus, New York, Hacourt, Brace & Co. 1928.

See the Maize Finders; Ancient and Anonymous, pp. 169-173, for an account of the domestication of maize.

DELABARRE, EDMUND BURKE, AND WILDER, HARRIS H.

The remains of small mounds or hills in which the Indians planted their maize and other crops. See also item 364.

DIGUET, LÉON.

Conclusions and bibliography, pp. 34-35.

EARLE, ALICE MORS.
INDIAN CORN IN COLONIAL TIMES. Chautauquau 26: 584-590. March 1898.

Chiefly instruction of the whites by the Indians in the cultivation of corn and its preparation as food.

EAST, EDWARD M.

An attempt to trace the exact path of the evolution of maize. Agrees with many of the conclusions of Montgomery and Collins and attempts to present only the probable way in which certain important jumps were made.

ERWIN, A. T.


Early literature on Susquehannah or papoon corn; archeological evidence: sacred corn; genetic aspect; literature cited.

FLETCHER, ALICE C., and LA FLESCHE, FRANCIS.


FURNAS, ROBERT W.
CORN; ITS ORIGIN, HISTORY, USES, AND ABUSES. 26 pp. Lincoln, Nebr. 1886.

See especially pp. 9-13 on the origin of corn.
One illustration shows an Indian woman roasting corn to dry for winter use; another, braided strings of seed corn curing on a scaffold.

“American Indian holds the record in developing the Mid-West’s greatest crop.”—Subtitle.

The pictures show a drawing of corn, or "Turkei Wheat," made in 1597, a Zapotecan urn with ears of corn on its sides, a wooden Indian hoe, and corn found in Indian ruins of the Basket-Maker era in Arizona.

The remnants of Indian agriculture found in the vicinity of Mohegan, Conn. A "footnote" revision of item 353.

The principal native methods of corn preparation still in use among the Seneca Indians, as told me by the people themselves during my various sojourns among them on their reservations in western New York, without any attention to treat the subject from the historical standpoint or to make a compilation from various authors.

The author concludes that sweet maize was derived through mutation from an older endosperm type or types, and that such mutation occurred in at least one instance in the Peruvian highlands before 1534 A.D.; that in this instance it seems probable that the sweet mutant first appeared in a variety of the floury type; and that a distinct group of sweet varieties, possessing characteristics similar to the Huanrachuco variety and possibly of similar genesis, is to be found under cultivation among the Indians of the arid Southwest, and probably in Peru.

Photograph of the Huanrachuco ear with sections of representative kernels, p. 509. Literature cited, pp. 513-514.

The illustration is of an old Indian corn-field in Haynes Township, Alcona County, Mich.
Hoskins, T. H.

The views of Peol Susup, a member of the Penobscot tribe, on their reserve on the Penobscot River, above Bangor, Maine, concerning Indian corn.

Hudson, Peter J.
Detailed recipes of the various ways the Choctaw Indians prepare corn.

Kellerman, W. A.
THE PRIMITIVE CORN. Meehans' Monthly 5: 44. January 1895.
"Speculation on the origin of Indian corn."

Kempton, J. H.
There are 18 illustrations, including reproductions of photographs of the following: prehistoric vases decorated with maize or corn, its use as a decorative motif emphasizing the plant's importance to the ancient aborigines; an Aztec terra cotta ceremonial urn showing the season's history of the maize plant from the planting to the harvest; a clay whistle made by the Maya Indians; prehistoric ears of maize; a plant of Tripsacum pilosum, a North American cousin of maize; plants of Gama grass (Tripsacum lanceolatum), a remote ancestor of maize; plants of the annual teosinte (Euchlaena mexicana), relative of maize; Jala maize which has the largest plants of any known variety; Cuzco maize which has the largest kernels.

Kempton, J. H.
Introduction, pp. 385-388; history, pp. 388-394; birthplace of maize, pp. 394-396; theories of origin, pp. 396-408.

The domestication of plants as a measure of civilization, pp. 319-328; the origin of maize, pp. 329-348; selected bibliography, p. 349. The 18 illustrations are excellent.

Lacy, Mary G.

[Lanman, Charles.]

Lawrence, D. H.
The corn dance of a Rio Grande pueblo. This account appears under the title "Indianische Mysterien; 1, Der Tanz des spilssenden Korns," in Neue Rundschau 45(1): 70-94 (January 1934).

Linton, Ralph.
The maize culture of eastern United States differed in several particulars from the maize cultures of the Southwest and Mexico, and the article shows that the traits peculiar to the United States were either developed independently after the acquisition of maize or were derived from some older food complex which did not center around maize.
LORD, RUSSELL.


See pp. 13-23 for material on agriculture, especially corn, among the Iroquois.

MANGELSDORF, P. C, and REEVES, R. G.


Botanical Relationships of Maize, pp. 10-34; Previous Evidence on the Origin of Maize, pp. 34-62; Previous Theories on the Origin of Maize, pp. 62-70; New Evidence from Cytogenetic Studies, pp. 70-203; The Origin of Teosinte, pp. 203-221; The Origin of Maize, pp. 221-267; The Origin of Tripsacum, pp. 267-288; Theoretical Phylogeny of the American Maydeae, pp. 288-290; Relationship of the American Maydeae to the Andropogoneae, pp. 291-272; Maize in Relation to Culture and Civilization (arrival of man in America; ancient cultures and civilizations—the Andean, the middle American, others; maize, agriculture, and the archaic culture—the origin of American agriculture, primitive agriculture in South American lowlands, geographical features in relation to domestication, possibility of an early indigenous agriculture in middle America, the spread of maize and agriculture), pp. 273-302; Conclusions, pp. 302-307; Literature Cited, pp. 308-315.

Review by E. D. Merrill in Geog. Rev. 30: 172-173 (January 1940).

McNAIR, JAMES B.


Origin, geographic distribution and varieties, pp. 2-13; use by the American Indian, pp. 14-18; modern industrial and experimental products, pp. 19-33. Note the photograph of the ancient Peruvian jar, p. 4, and that of a preconquest Mexican maize almanac, pp. 16-17.

MEAD, CHARLES W.


Description of how corn was planted, ground, and prepared by the Indians. The illustrations show an Iroquois woman pounding maize into meal; a metate and handstone; a grinding device used in Peru and Bolivia; and an ear of corn from a pre-Columbian grave in Peru.

Messedaglia, Luigi.

IL MAIS E LA VITA RURALE ITALIANA, SAGGIO DI STORIA AGRARIA. 446 pp., illus., map. Piacenza, Federazione italiana del consorzio agrari. 1937.

See ch. 2, Generalità sul mais nell'antica America; ch. 3, Cristoforo Colombo e il mais; ch. 4, I nomi del mais; ch. 5, Il grano turco; perchè turco? Bibliographical note at end of each chapter.

MILLSPOUGH, CHARLES, F.


N., H. B.


The attempts of archaeologists to find the American origin of cultivated corn.

NEVILLE, RUSSELL T.


"Growing corn a thousand years before Christ."

NUTTALL, ZELIA.


Attention is called to the statement made on page 21 of the Chevalier Boturini's Idea de una Nueva Historia General de la America Septentrional to the effect that he found wild maize growing in forests on the tierra caliente of Mexico and urges the reliability of this report of the comparatively late survival in the wild state of an ancestor of cultivated maize.

Bibliographical footnotes.

See also the same writer's "Wilder Mals in Mexiko," in Ztschr. f. Ethnol. (1927) 59 (3-6): 252-254.
PARKER, ARTHUR CASWELL.


A valuable scientific ethnobotanical study. Pt. 1, Maize, pp. 9-88: 1, Maize or Indian Corn in History, pp. 9-15; 2, Early Records of Corn Cultivation, pp. 15-20; 3, Iroquois Customs of Corn Cultivation, pp. 21-36; 4, Ceremonial and Legendary Allusions to Corn, pp. 36-39; 5, Varieties of Maize Used by the Iroquois and Other Eastern Indians, pp. 41-44; 6, Corn Cultivation Terminology, pp. 44-45; 7, Utensils Employed in the Preparation of Corn for Food, pp. 45-58; 8, Cooking and Eating Customs, pp. 59, 65; 9, Foods Prepared from Corn, pp. 66-80; 10, Uses of the Corn Plant, pp. 80-88.


The illustrations are excellent and include views of the following: Hoe blades; husking pins; corn mortars; baskets of various kinds; roasting frame; storage barrels, pits and cribs; corn picking and husking; ceremonial masks; masks of shreds of braided husk; husk mocasins.

RIPPERGER, HENRIETTA.


"The recipes of the Indian, whose gift it was, are still followed by the white man."—Subtitle.

STECKE, HENRY M.


This description of the agricultural methods of the Pueblo and the nomadic Indians of Arizona and New Mexico, is reprinted in Indian School Jour. 22 (3) : 9-19, illus. (Chilocco, Okla., October 1922).

The illustrations show the following: Charred corn from pit in prehistoric communal dwelling on mesa north of Los Alamos Cañon, N. Mex.; hill of corn at Zuñi Pueblo, N. Mex.; agricultural implements of the natives of Laguna Pueblo, the hoes having been fashioned from old shovels and the handles made of piñón; the Heppatinna, a Zuñi shrine in the midst of a large Indian cornfield, the structure being consecrated to the center of the earth over which spot it is supposed to stand; a Navajo's corn crop; a Hopi Indian demonstrating his method of corn planting; Laguna Indian husking corn into a sacking apron; Pima granaries at Sacaton, Ariz.; corn drying on the house tops at San Felipe Pueblo, N.M.; corn in a dooryard at Laguna, field of Hopi corn and melons at the foot of the First Mesa, Polacca, Ariz., produced without irrigation; exterior view of a kiva or estufas, underground rooms where the secret fraternities hold their ceremonials; Hopi Indians making bread.

STICKNEY, GARDNER P.


Bibliographical footnotes.

STURTEVANT, E. LEWIS.


Bibliography, pp. 39-40; antiquity of its culture, pp. 42-46; mythology, pp. 47-49; original varieties, pp. 55-59; Indian cultivation, pp. 66-68; products, pp. 69-69.


Agricultural products other than corn are included.

THONE, FRANK.


Mr. R. Gilmore's suggestion that agriculture spread from Mexico to the eastern United States by way of "a belt of oak-hickory forest that reaches westward along the scarp of the Edwards Plateau almost to Del Rio on the Rio Grande."
TINDALL, CORDELL.  
A GIFT FROM THE GODS; THAT'S THE INDIAN VERSION OF THE ORIGIN OF CORN. Mo.  
"Really, since the dawn of history agriculture has advanced as methods of corn growing having improved. . . . It cannot definitely be proved, but many scientists think that corn was the first cultivated cereal."

The illustrations show an Aztec urn decorated with ears of corn, annual teosinte, and ears of Navaho corn.

WEATHERWAX, PAUL.  

THE STORY OF THE MAIZE PLANT. 247 pp., illus., maps. Chicago, Univ. Chicago Press. 1923.  
See 1, Introduction, pp. 1-3; 2, Names and Relationships, pp. 4-10; 3, History and Geographical Distribution, pp. 11-21; 26, Maize in Aboriginal America (food supply and civilization; maize areas in America; origin of maize culture; evolution of maize culture; varieties grown by the Indians; agricultural engineering; harvesting and storage; uses; maize and religion; America's gift to mankind), pp. 197-216; 27, Maize in American Life, pp. 217-225; Bibliography, pp. 226-235.

WENZ, ALFRED.  

The corn growing of the Mandan Indians in the Upper Missouri Valley.

WILL, GEORGE FRANCIS.  
See especially 3, Brief History of Corn Growing, pp. 18-22; and 5, History of Aboriginal Corn Growing in the Northwest, pp. 29-34; References, pp. 154-156. Photographs of aboriginal agricultural tools and products, pp. 18; Arikara Indians preparing corn for drying, p. 20; Indian woman roasting corn beside her cornfield, p. 21; typical Mandan and Arikara corn ears, p. 30; Ft. Berthold village, about 1870, showing the earth lodges and corn scaffolds, p. 33.

— and HYDE, GEORGE E.  
CORN AMONG THE INDIANS OF THE UPPER MISSOURI. 323 pp., illus. St. Louis, Mo., William Harvey Miner Co. 1917. (Little Histories of North American Indians, No. 5.)

Acknowledgements; Introduction; 1, The upper Missouri Indians (1, migrations and early history; 2, The earth-lodge village; 3, agriculture); 2, Planting and Cultivation (1, spring work; clearing and planting the ground; 2, hoeing and weeding; 3, the patches, acreage, and yields); 3, Harvest (1, the return from the summer hunt; 2, the green-corn harvest; 3, the ripe-corn harvest; 4, storing the crop; 5, yields); 4, Corn as food (1, methods of preparing corn; 2, utensils); 5, Corn as an article of trade (1, early inter-tribal trade; 2, trade with the whites); 6, The sacred character of corn (1, the corn and the buffalo; 2, corn origin myths); 7, corn ceremonies (1, ceremonial organization; 2, sacred corn; 3, spring, summer, and fall ceremonies; 4, various ceremonies, beliefs, and practices); 8, Varieties.

The illustrations show the following: Set of Hidatsa agricultural implements; ears of various varieties of corn raised by the Indians; plants of various varieties of corn raised by the Indians; Mandan squash; rawhide bowl and stone mortar; bone hoe; baskets of the Mandans, Hidatsas, and Arikaras; Arikara woman threshing corn on the roof of her house.

Wissler, Clark.


Cotton

Bailey, Vernon.


Description of the wild cotton plant, Thurberia thespesioides, found in Arizona, giving its zonal range and a list of other plants generally associated with it.

Crawford, M. D. C.

The heritage of cotton, the fibre of two worlds and many ages. 244 pp., illus. New York and London, G. P. Putnam's Sons. 1931.

See especially ch. 4, The New World, pp. 30-45; and ch. 5 Peru, pp. 46-61; Bibliography, pp. 233-237. Ed. 1, 1924.

Hanson, Herbert C.


Introduction, p. 49; description of Arizona wild cotton, pp. 50-51; previous investigations, pp. 51-52; distribution of Thurberia, pp. 52-55; description and distribution of the wild cotton boll weevil, p. 55; map of the southern part of Arizona showing the known distribution of Arizona wild cotton and the wild cotton boll weevil, pp. 56-57; conclusion, p. 58. Bibliography, p. 59.

Haury, Emil W., and Conrad, Carl M.


Kearney, Thomas H.


Introduction; domesticated in prehistoric times; the beginnings of European contact with cotton; what cotton plants are like; development and structure of the seed hairs; biological significance of the seed hairs; geographical distribution of Gossypium; classification of the cultivated forms; wild species of Gossypium; origin of the modern commercial cottons; literature cited.

Lewton, Frederick Lewis.


The antiquity of cotton culture in the Southwest; references to cotton by the first Spanish explorers; evidence of former cultivation by the Hopi Indians and the Pima Indians; and the modern uses and cultivation of cotton by the Hopis.


McDonald, R. K.

Texas grew cotton a thousand years ago; records indicate that the staple was produced and worn by the Indians before Europeans came over. Farm and Ranch 47 (4) : 1, 3, 23. Jan. 28, 1928.


DOGS

Allen, Glover M. (415) DOGS OF THE AMERICAN ABORIGINES. Harvard Univ., Mus. Compar. Zool. Bul. 63 (9) : 431-517, illus. Cambridge, Mass. 1920. The information recorded by the early travelers on the appearance of the dogs of the American aborigines and the characteristics of the various breeds that can be distinguished considered under the following subheads: Origin of the domestic dog; origin of American dogs; breeds of American aboriginal dogs; summary. The bibliography, pp. 504-517, gives "the more important papers on the origin of the dog, and on prehistoric dogs of the New World, as well as references to the aboriginal dogs of America."


See also items 12, 20-21, 24, 134, 156, 428, 742.

HORSES


DOBRIZHOFER, MARTIN. (421)
Account of the South American horse complex. Translated from the Latin by Sara Coleridge.

GRINNELL, GEORGE BIRD. (422)

HAINES, FRANCIS. (423)
Bibliography, pp. 436-437.

Contends that Indians acquired horses from the settlement at Santa Fe rather than from strays of Coronado's and DeSoto's expeditions. See item 426.

STONE, ARTHUR L. (424)
The horses raised by the Indians on the rich bluejoint grass of the western Montana valleys.

STANTON, JOHN R. (425)
Evidence in substantiation of the view in item 424 that the Indians did not acquire horses from the De Soto expedition.

TURNEY-HIGH, HARRY. (426)
A tradition of the Flatheads, interior Salish, regarding the capture of their first horses in the middle of the eighteenth century.

WILSON, GILBERT LIVINSTONE. (427)
During the period 1908-18, the author spent from 1 to 2 months of each year among the Hidatsa Indians, collecting for the Museum and gathering information as to their culture. This study contains only the portion of his data bearing upon, or associated with, the dog and horse culture complexes of the tribe.
The section on Horse Culture, pp. 141-196, considers the subject under the following subheadings: Origin; ideas concerning horses; the colt; castration; stallions; training; summer pasturing and herding; winter care of horses; care of horses on the warpath; protecting pack horses from magpies; horsegear; names for horses.
The section on Dog Culture, pp. 196-228, under the following subheadings: Origin; the puppy; castration; feeding; kennels; the village dogs; dogs as property; gathering wood; collecting wood from the river; fetching firewood and game by bull-boat; training a dog; names and descriptions of dogs; children ride on a dog travois; making a dog travois; dog travois shelter tent.

A series of tales on the origin, breeding, care, and training of horses among the Indians in the early days, told by Tseca-matsutelc, or Wolf Chief, to Gilbert L. Wilson, arranged under the following headings: 1. The birth of a colt; 2. training a colt; 3. tending the herd and making of bridles; 4. caring for the herd in the winter camp; 5. use of horses in warfare.
"Wrapped up in their histories is the whole story of bringing the horse to the New World and in part his domestication in the Old." The illustrations show a Shoshone Indian saddle, a saddle being made in an Indian camp, and an Indian travois, a primitive vehicle consisting of two trailing poles bearing a net or cross bar for a load.


The origin of the horse in America and the manner in which the wild herds bred from the horses of Coronado and De Soto were utilized by the Indians.

The illustrations show the following: Old Spanish bits found among the Navajo and the Crow; a woman's saddle used by the Blackfoot; a headed saddle cloth of buffalo hide from the Teton-Dakota; a man's saddle from the Crow Indians; a finely carved saddle of wood used by the Menomini Indians; Plains Indians in camp, showing a saddle in the making in the foreground, and horses and buffalo in the distance, from a painting by George Catlin in 1833, the original being in the Mills Collection; a pad saddle used by the Dakota Indians; a woman's saddle from the Wind River Shoshone; a Thompson Indian saddle from British Columbia; a saddle frame; a crupper for a woman's saddle; a drawing, "Moving Camp before the Day of the Horse," by F. N. Wilson; a sketch of a Spanish mount from a drawing by an Aztec in the time of Cortez; drawings showing how the Indian made his stirrup after the old Spanish model.


See also items 5, 24, 134, 226, 232, 417, 742.

MAPLE SUGAR

CHAMBERLAIN, A. F.


HENSCHAW, W. H.

INDIAN ORIGIN OF MAPLE SUGAR. Amer. Anthrop. 3: 341-351, illus. October 1890.

WOJTAL, J. F.

A VISIT TO THE INDIAN SUGAR-BUSH CEREMONIALS. Wis. Archeol. 11: 172-175. July 1892.

Ceremonials; the appointed day; the feast; change of drums; dancing; sugaring; customs of Indian tribes.

See also items 12, 24, 58, 217, 224, 322, 601, 674.

POTATOES

ANONYMOUS.


Editorial on the work of Russian scientists in developing a potato for Arctic Siberia and on their debt to the Indians of the western Andes.
Ballivián, Manuel Vicente, and Cevallos-Tobar, Walter. (439)
noticia histórica y clasificación de la papa de Bolivia. 22 pp., illus. La Paz, Bolivia. 1914.
Historical and descriptive account of the cultivation, manner of growth, habitat, uses and varieties of the potato. Review under the title, "Geographical Features of Potato Production in Bolivia," in Geog. Rev. 4: 318 (October 1917).

Fuesz, Wilhelm. (440)

Juzepczuk, S. W., and Bukasov, S. M. (441)
Russian text, pp. 593-610; bibliography, p. 610; English summary, pp. 610-611. The potato originated in two centers: the Peru-Bolivian plateau and southern Chile.

Lauffer, Berthold. (442)
The American plant migration; pt. 1, the potato. 132 pp., illus. Chicago, 1938. (Field Mus. Nat. Hist., Chicago, Pub. 418, Anthrop. Ser., v. 28, no. 1.)
Introduction, pp. 9-11; botanical origin of the potato, pp. 12-18; early history of the potato in South America, pp. 19-26; the potato in the West Indies, p. 27; introduction of the potato into North America, pp. 28-39; the potato in Spain, Italy, and Central Europe, pp. 40-45; the potato in Great Britain, pp. 46-58; the potato in Japan and Korea, pp. 59-65; Germany, Scandinavia, and Eastern Europe, pp. 66-68; the potato in China, pp. 69-70; the potato in the Near East, and the Caucasus, p. 88; the potato in Africa, p. 89; the potato in India, Burma, Siam (Thailand), and Indo-China, pp. 90-94; the potato in Malayan and Oceanic Regions, pp. 95-101; Bibliography, pp. 112-125.
The illustrations show: Distributions of potato varieties cultivated by the South American Indians; potato-form vessels from Chimbato, Peru; wood-engraving of potato plant and tubers; potato plant showing branch with blossoms and tubers; John Gerard holding spray of potato plant; sketch of potato plant.

Lawson, Alexander, and Moon, H. P. (443)
The Quechua Indians on the Capachica Peninsula near Puno dip potatoes in an aqueous suspension of clay, consisting of kaolin and possibly coumarin, before eating.

Patrón, Pablo. (444)
Bibliographical footnotes.

Rybin, V. A. (445)
Safford, William Edwin. (446)

The potato of romance; testimony from prehistoric tombs; true history of the potato; potatoes cultivated by the Indians of southern Chile; introduction of the potato into culture; the potato in Prussia and France; the potato in North America; search for the wild form; summary.

The 31 illustrations show: Sir Walter Raleigh, legendary introducer of the potato into Europe, depicted in the act of giving the potato to the Irish; John Gerard holding in his hand a flowering branch of Solanum tuberosum, which he called Battata Virginiana sive Virginianorum et Pappas, pretending to have received from Virginia the tuber from which it was propagated, he being responsible for the transfer of the name "potato" from Ipomoea batatas to Solanum tuberosum and for the confusion of the latter with the Apenauk of Virginia; the original potato, now called the sweetpotato; the first published illustration of Solanum tuberosum from John Gerard's Herbal (1597); the Virginia potato or Apenauk; Apenauk roots or Indian potatoes; Moray or "white chunyo"; ancient foods found with Peruvian mummies; potato vases; Indians drying potatoes for "chunyo"; oldest drawings of the potato—drawing received by Charles de L'Ecluse from Philippe de Silvry, January 26, 1588, original in Plantin-Moretus Museum at Antwerp; the Great Elector, Frederick William, with his consort, inspecting potatoes planted by his order in the Berlin Lustgarten; Frederick the Great visiting a potato field planted in obedience to his decree; four scenes portraying the measures taken by Parmentier to introduce potato culture into France.


Salaman, Redcliffe N. (447)

Detailed account, based mainly on pottery remains for the early history and a careful examination of all records for the introduction into Europe. Excellent illustrations. The author believes that a "potato religion" existed among the Indians.


Swanton, John R. (448)

The name "age" or "aje" was applied to all kinds of potatoes by various Indian tribes.

Taylor, Norman. (449)

The article shows that "from the plunder of Peru came the first potato" and that "neither Sir Walter Raleigh in 1586 nor Sir Francis Drake in 1580 brought the potato from Virginia to England or Ireland, for it did not grow in Virginia at that time."

See also items 18, 20, 74, 90, 101-103, 105, 107, 112, 136, 147-148, 151-152, 173, 517, 630, 701.

Chevalier, Auguste. (450)

Découverte du tabac; le tabac au point de vue botanique; classification et hybridation; la culture et l'usage du tabac chez les Indiens; les débuts de la culture européenne en Amérique; mode de culture et de préparation du tabac aux Antilles au XVIIe siècle; les débuts du tabac en Océanie; les débuts de la culture en Asie; l'origine du tabac en Afrique; introduction du tabac en Europe et spécialement en France; conclusions; bibliographie.
Dale, George Irving. (451)
An extract from Gonzalo Fernández de Oviedo y Valdés, La Historia General y Natural de las Indias (Seville, 1535), which is the earliest known account of the use of tobacco. The brief introductory statement is based on an account of the book in the Mo. Bot. Gard. Bul., December 1924.

Dam, Cornelia H. (452)
TOBACCO CHEWING ON THE NORTHWEST COAST. Amer. Anthropol. 35: 146-150.
Dixon, Roland B. (453)
The alleged chewing of tobacco with lime by the Haida and Tingit of northern British Columbia has been used by diffusionists as evidence of trans-Pacific culture contact. Investigation throws doubt on the fact; the plant was probably not a tobacco at all, though its identification remains obscure.


Douglas, Frederic H. (455)

Dustin, Fred. (456)

Ernst, A. (457)
"The development, with some necessary corrections, of a note . . . sent to the International Congress of Anthropology, held at New York in the month of June 1888."

Gilmore, Melvin Randolph. (458)

A commentary on item 471.

Grimes, Katharine Atherton. (460)
THE STORY OF TOBACCO. South. Agr. 61 (9): 7, 35; (10): 12, 21; (11): 10-17, illus. September, October, November 1931.
Pt. 1, The Indian’s Smoke of Incense; Pt. 2, A Pagan Becomes Civilized; Pt. 3, The Indian Weed Goes to Market.
Pictures, accompanying the first installment, show the following: Pipehead from Ohio mound; steatite pipe from Georgia; town of Secoton, N. C., drawn by John White, Roanoke Island, 1586, with a tobacco field at the left just below the center; elephant pipe, Iowa; Toucan pipe of the Mound Builders; deerskin tobacco pouch of the Pima tribe.

Harrington, John Peabody. (461)

Hill-Tout, Charles. (462)
Description of a pipe from a cave in Moses Coulee of the Columbia River region of Washington.
LAUFER, BERTHOLD.
Introduction and early cultivation of tobacco in England, pp. 3-21; the great tobacco controversy in England, pp. 22-33; use of tobacco in England, pp. 33-48; tobacco in France, Portugal, Spain, and Italy, pp. 48-57; tobacco in central and northern Europe, pp. 57-58; tobacco in Russia and Turkey, pp. 59-65.

LINTON, RALPH.
The illustrations show the different types of American Indian tobacco pipes. Bibliographical references, p. 27.

LOWIE, ROBERT H.

MACLEOD, W. C.

MASON, J. ALDEN.
The use of tobacco in the pre-Columbian and later days by the aboriginal tribes of Mexico and South America. The six illustrations show tobacco pipes.

MCGUIRE, JOSEPH DEAKINS.

MORICE, A. G.
Strong grounds for believing that the use of tobacco was unknown to the northern tribes of Canada before the advent of the whites.

PHILHOWER, CHARLES A.

SETCHELL, WILLIAM ALBERT.
The different species and their distribution in aboriginal America. Commented on in item 459.

SHETRONE, HENRY CLYDE.
Introduction, pp. 82-83; the botany of tobacco, pp. 83-84; tobacco and the American Indian, pp. 84-86; tobacco goes abroad, pp. 86-89; tobacco and the colonists, pp. 89-90; tobacco commercially considered, pp. 90-91; various forms of use, pp. 92-96; tobacco and health, pp. 96-98; prehistoric use of tobacco, pp. 98-100; tobacco in literature, pp. 100-102.

SIMMS, S. C.
Although announced as a preliminary report it has remained without a sequel.
Singer, Charles.
Columbus' first sight of the plant, pp. 125-127; the Indians' habit of smoking, pp. 128-130; Jacques Cartier, p. 130; André Thenet, p. 131; his "Singularitez de la France Antarctique," pp. 131-135; process of "curing" and "fermentation," p. 134; introduction into France and Italy, p. 135; medicinal properties of the herb, pp. 136, 141; works on, pp. 137-139; narcotic properties, p. 139; introduction into England, p. 140; use as a disinfectant, p. 141; amongst native races, p. 142.

Skinner, Alanson.

Skinner, Alanson.
SOME SENEGA TOBACCO CUSTOMS. Indian Notes 2: 127-130. April 1925.

Stahl, Günther.
Summary by Herbert Baldus in Social Sci. Abs. 4: 116 (January 1932).

West, George A.
Foreword, pp. 21-23; Acknowledgments, pp. 25-28; Introduction (discovery of tobacco; the name "tobacco"; Indian names for tobacco; introduction of tobacco into Europe), pp. 29-35; The Conquest of Tobacco (Europe—Russia—Turkey and the onward march of tobacco), pp. 37-46; Use of Tobacco by the American Indians as a Medicine, pp. 47-51; Cultivation and Use of Tobacco by the American Indians (species of tobacco used or cultivated by the Indians in America; offerings of tobacco in a dry state; smoke offerings and other uses of tobacco; snuff; tobacco chewing among the American Indians; tobacco chewing among the Eskimo), pp. 53-103; Blends and Substitutes for Tobacco, pp. 105-116; Aboriginal Trade Routes, pp. 117-120; Present Production and Disposition of Tobacco in the United States, pp. 121-122; Myths Relating to Tobacco, pp. 123-124; General Pipe Areas, pp. 125-126; Classification of Aboriginal Smoking Pipes, pp. 127-303; Modern Pipes and Smoking Customs, pp. 305-328; Aboriginal Pipe Materials, pp. 329-331; Methods of Manufacture of Aboriginal Pipes, pp. 333-332; Myths—Tobacco Pipe, pp. 333-364; Distribution of Aboriginal Pipes, pp. 355-378; Summary, pp. 379-388; Conclusion, pp. 389-390; Bibliography, pp. 391-409; Findings List for Pipes by Locality where Found or Collected, pp. 453-466; Finding List for Pipes by Collections and Collectors, pp. 467-477.

Wild Rice
Anonymous.
Brief statement based on a report from the American consul at Kingston, Ont., devoted to an account of the wildrice (Zizania aquatica), along the shores of Rice Lake, a few miles north of Cobourg.
ANONYMOUS.  

How the Indians of Minnesota and Wisconsin harvest wildrice.

ALBES, EDWARD.  

Note especially pp. 139-143 on the wildrice (*Zizania aquatica*), indigenous to North America, and an important item in the domestic economy of various Indian tribes. Illustrations showing wildrice tied in bunches or sheaves, a drying rack used to cure the grain after its collection from the fields, and a stave-lined threshing hole for treading out grain.

BROWN, EDGAR, and SCOFIELD, CARL S.  

See especially: Introduction; distribution and habitat of the plant; life history and natural propagation; botanical description; varieties; diseases; harvesting the seed; preparation of the seed for food purposes; the food value of rice. Part of this article is reprinted with the same title In *Sci. Amer.* Sup. 56: 23268-23269 (Oct. 31, 1908).

CARLSON, E. J.  

The Indian rice camps of the White Earth Reservation are described. The article is of value chiefly for its descriptions of the processes of gathering, parching, hulling, and winnowing the rice, and for the accompanying pictures of these operations.

CATES, J. SIDNEY.  
*The Highest Priced Cereal; Epicures Say Wild Rice Is the Only Thing to Eat With All Sorts of Game.* Country Gent. 89 (38) : 10, 29. Sept. 20, 1924.

HOUGH, DONALD.  
*An Ancient Harvest in Our Own Northwest.* Travel 43 (2) : 24-26, 48, illus. June 1924.

The wild rice of the Minnesota lakes; the Chippewas as a link with America's past; and primitive methods in gathering the Indian's winter food. The illustrations show a Chippewa Indian boy poling a boat through a rice slough while an old squaw bends the long stalks over the gunwales and beats the kernels into the boat with two short sticks; a camp of the rice harvesters; one of the grass granaries constructed to shelter the bags of grain kept for winter use; groups of Indians threshing wild rice; an old squaw winnowing the rice to remove chaff.

HUBER, ALBERT.  

Modern methods of harvesting and sale through the Chippewa Indian Cooperative Marketing Association in Minnesota.

JENKS, ALBERT ERNEST.  

1. Botany; 2. Habitat (introduction; habitat according to States; habitat in the wild-rice district; foreign habitat); 3. Indians; 4. Production (introduction; sowing and other early care; tying; curing and drying; threshing; winnowing; storing; property right in wild rice; amounts of wild rice harvested); 5. Consumption (nutrition; ways of preparing wild rice for food; periods of consumption); 6. General Social and Economic Interpretations (the wild rice moon; wild rice in ceremonials and in mythology as found in Indian traditions; dependence of the Indian on wild rice; dependence of the white man on wild rice; Indian population of the wildrice district); 7. Influence of Wild Rice on Geographic Nomenclature; Bibliography, pp. 1126-1133.
JENKS, ALBERT ERNEST—Continued.

The noteworthy Illustrations show the following: Wildrice bed in Lac Courte Oreille River; a narrow bed of wildrice tied in bunches or sheaves; sickle-shaped sticks used to draw the stalks within reach for tying; wildrice field after the harvest; drying rack for grain; a section of a drying rack; a stave-lined threshing hole for treading out the grain; wildrice kernels before threshing; threshing wildrice by means of a churn dasher-like stick; Indian woman winnowing wildrice; wildrice kernels after threshing and winnowing; birchbark moccasins in which the grain is carried; birchbark winnowing tray.


JENNESS, DIAMOND.


LLOYD, TREVOR.


The activities of the Chippewas at Lac du Bois near Winnipeg receive special attention. The illustrations show steps in the rice harvest.

REAGAN, ALBERT B.


Observations of the author at Nett Lake, Minn., where he had charge of the Bois Fort Indian Reservation as superintendent and special disbursing agent from 1909 to 1914.

RIEMER, CHARLOTTE.


A legend concerning the discovery of the food value of wildrice.

STICKNEY, GABDNEB P.

INDIAN USE OF WILD RICE. Amer. Anthrop. 9: 115-122, Illus. April 1896.

TITUS, WILLARD H.


Gathering wild rice, p. 131.

See also Items 3, 5, 9, 12, 33, 91, 103, 224, 322, 545, 601, 650, 672.

WILD TURKEYS

ANONYMOUS.

TURKEYS ARE NATIVE AMERICANS. El Palacio (Santa Fe) 23: 576. 1927.

SCOTT, JAMES E.


WRIGHT, ALBERT HAZEN.


Synopsis of references to the wild turkey in literature from the earliest times to about 1870.

ZIMMER, JOHN T.


See also Items 112, 250.

AGRICULTURE ON INDIAN RESERVATIONS IN THE UNITED STATES

ANONYMOUS.

INDIAN AGRICULTURAL FAIRS. Red Man 8 (4). December 1915.

The entire number is devoted to the subject indicated by the title.
Anonymous.  

Indian cooperatives encouraged by Indian Reorganization Act.  

Indian fairs as related to the progress that modern Indians are making in agriculture. The first Indian fair was held on the Crow Reservation in Montana in the fall of 1903; in 1915, nearly 100 fairs were held. Picture of an Indian exhibitor and exhibits at an agricultural fair, p. 108.  

An editorial on the forested lands belonging to the Indians.  

Indian forestry; forests for Indian workers; the Indian as a forester; the Indian C. C. C.; and Indian rehabilitation.  

"On Indian reservations in the West there are a number of reclamation projects operated by the Bureau of Indian Affairs for the purpose of helping the Indian to become self-supporting."—Subtitle.  


Extracts are reprinted under the title "Navajo Fair," in Pan. Amer. Union Bul. 41: 400-405, illus. (September 1915). The fair described is held at the Government school and agency on the San Juan River in New Mexico. Every community in a reservation of about 6,000 square miles contributed toward the display. The blankets served as a background for the many and varied other exhibits—fruits, grains, vegetables, baskets, and the beautifully wrought work of the Navajo silversmiths.  

Editorial on the Wheeler-Howard "Indian Rights" bill (S. 2755; H. R. 7902), Including statements concerning the ownership and management of land among the Indians.  


Abbott, F. H.  

Allen, Edgar P.  
"Some of the largest timber sales ever made by the United States Government, and at the highest prices, have been from Indian reservations in the last twelve years—many for 1,000,000 feet."—Subtitle.  

Barnes, Will C.  
"An understanding report of the red man's struggle for existence."—Editor.
Beaglehole, Ernest. (514)
NOTES ON HOPI ECONOMIC LIFE. 88 pp. New Haven, Yale Univ. Press. 1937.
(Yale Univ. Pubs. Anthrop. 15.)

Household, kin and clan (bilateral kin group, the clan group), pp. 5-9; ownership and control of property (personal property, group ownership, land ownership), pp. 10-17; economic organization (division of labor, education, specialization, seasonal calendar of work, economic cycle, organization of work, work psychology), pp. 18-32; agriculture (natural phenomena and weather lore, choice and preparation of land, planting and cultivation, harvesting, ritual in agriculture), pp. 33-48; secondary productive activities (hunting and herding, gathering of natural products, salt, pigments, wood, craft activities, house building), pp. 49-59; foods and their preparation (methods, recipes), pp. 60-71; distribution of native wealth through ceremony and exchange (personal ceremonial, birth and naming, initiation, marriage, death, religious ceremonial, gifts and forfeits, trade), pp. 72-86; bibliography, pp. 87-88.


Blakeley, C. H. (515)

“The destiny, past and future, of those tribes of the Sioux Nation located upon the Rosebud and Pine Ridge Reservations,” along the western part of the southern border of South Dakota.

Blanchard, C. J. (516)
UNCLE SAM PAYS A DEBT TO INDIANS : AN IRRIGATION SYSTEM FOR THE PIMAS OF ARIZONA. Amer. Rev. of Reviews 65: 622-624, illus. June 1922.

The construction of a diversion dam on the Gila River at Florence, Ariz., completed in 1922 for the irrigation of 62,000 acres, 35,000 of which belong to the Pimas. The illustrations show: a Pima Indian family and their home in the Gila Valley, Ariz.; the diversion dam across the Gila River at Florence, Ariz., an automobile engine as motive power for a narrow-gage railway; a Pima Indian with his mule team, cultivating Egyptian long-staple cotton in Arizona.

Bowers, George Ballard. (517)

The Mission Indians of California, including information on their agriculture. The illustrations include an Indian potato farm; an Indian vineyard on the Pala Reservation; a peach orchard; a cotton field in San Diego County; an alfalfa field.


The present day agriculture of the Hopis. The illustrations show the harvesting of corn, planting corn at a school, and peach orchards on the farm of a modern Hopi.

Bryan, Kirk. (518)

“Flood-water farming is practiced in the more remote areas of the Southwest and was more prevalent in the early days of settlement than at present . . . this paper consider[s] the geographical relationships of the practice of flood-water farming and . . . the decline in acreage in relation to recent changes in stream channels. This complex relationship has also an anthropological importance since flood-water farming was one of the important sources of livelihood of the prehistoric sedentary Indians of the Southwest.”

Modern flood-water farming; fields below escarpments; fields at the “arroyo mouth”; fields in main valleys; contrast between Indian and Spanish farming; effect of the recent epicycle of erosion; dry farming of beans as a new industry. There are three views of cornfields in Gutierrez Canyon, Sandia Mountains, Bernalillo County, N. Mex.; one of a bean field near Sedillo, Bernalillo County; two of fields in Arroyo en Medio.
BIBLIOGRAPHY ON THE AGRICULTURE OF THE AMERICAN INDIANS

BUNTIN, MARTHA.  
In 1881 and 1882 P. B. Hunt, U. S. Indian agent for the Kiowa, Comanche, and Wichita tribes, leased surplus grazing lands in exchange for beef to feed the Indians, Congress having provided insufficient appropriations for that purpose.

CHUBBUCK, LEVI.  
Memorial relative to Indian boarding schools and agricultural stations. Ordered to be printed for the use of the Committee on Indian Affairs, Feb. 16, 1911.

TEACHING AGRICULTURE IN INDIAN SCHOOLS. Native Amer. 14: 151-152. Mar. 8, 1913.

COHEN, FELIX S.  
The anthropologist and Indian administrator should work together on such problems as education, administrative areas, economic activities, land tenure, inheritance, health, art, and recreation.

COLLIER, JOHN.  
Summary of work accomplished under the Indian Reorganization Act.

A plea for the Wheeler-Howard bill, and the Indian's response to new policies.

The allotment policy.

Historical survey of governmental policies toward Indian land.

Brief description of the Wind River and Navajo Reservations.

Effects of the Pueblo Land Act of 1924.

SHEPARD, WARD, AND MARSHALL, ROBERT.  

COOLIDGE, CHARLES F.  
[AGRICULTURE ON THE FORT BERTHOLD, NORTH DAKOTA RESERVATION.] Minneapolis Tribune, June 22, July 6, 13, 20, 1924.

COOK, SOLOMON.  
The activities of the Mohawk Indians in their present home along the St. Lawrence River near St. Regis.

COOLIDGE, DAVE, AND COOLIDGE, MARY ROBERTS.  

COOLIDGE, MARY ROBERTS.  

The Navajos, especially their rugs. A summary of article by John L. Cowan in Our West (Los Angeles).

DABB, EDITH MANVILLE.

Also available in slightly expanded form as an article entitled "Missionary Agriculturists Needed for American Indians" in South. Workman 51: 378-381 (August 1922). The author was the secretary for Indian schools of the National Y. W. C. A.

DAWES, HENRY L.

The purpose for which the commission to the Five Civilized Tribes was created, and the "present condition" of their work.

DONAGHY, JAMES A.

What the Indians on some of the large reserves in Alberta are doing.

DOBY, WILLIAM.

Brief review of the Apaches since the Civil War.

THE MESCALERO APACHES PRESENT CONDITIONS. South. Workman 51: 413-419, illus. September 1922.

DRAPER, W. R.

The illustrations show a Delaware Indian farmer; Comanche Indian boys hoeing a melon patch; the Seger Industrial School Colony, Oklahoma Territory; and Washita and Caddo Indians clearing a cornfield.


"The curtain will soon be rung down on what has been termed by many the greatest human tragedy of the end of the century. Within two years the Indians of the Five Civilized Tribes will be entirely stripped of their identity as a people, their laws abolished, and their lands divided into small tracts."

Dwight, Ben.

It is necessary that farming be used as the cornerstone for the reconstruction program among the Choctaw Indians.

Eastman, Elaine Goodale.

The hunter essays to farm, pp. 599, 601; ranch life in the sand hills, pp. 631, 632.

EGGERSTONE, Adelia L.

The State public-health plan; the clinic at the wildrice harvest, life in the rice camp; teaching by example; lay group aids Indian service; and the ineffectiveness of the white man's medicine.

Elliott, W. J.

Craft work is urged to supplement agriculture, which the western Canadian Indians find difficult.
Indian schools in western Canada teach farming and related occupations.

Faris, O. T.

The article states that approximately 10 percent of the Indian population of today is engaged in the sheep industry and that the Navajos take the lead in numbers and production. The illustrations show: Navajo owner-herder and his sheep; one of the Navajo designs; ewes on the Jicarilla Apache winter range.

Fletcher, Alice C.

Flood, Francis A.

Description of the present lands of the Navajo, Hopi, and Pueblo Indians. Also in Ind. Farmers' Guide 93: 712, 719, illus. (Dec. 4, 1937). The illustration shows an Indian woman shucking corn near Cuya Mengue, N. M.

Flood, Francis A.

Present-day Hopi farming practices with illustrations showing corn cultivation and an orchard. Also under the title "Living on Sand and Hope" in Ind. Farmers' Guide 94: 84, 85, illus. (Feb. 12, 1938), with illustrations showing corn drying, corn planting, a cornfield, and a corn hill.

Flood, Francis A.

Present-day agricultural conditions on the Navajo Reservation with illustrations showing a hogan and sheep. Also in Ind. Farmers' Guide 94: 193, 209, illus. (Mar. 26, 1938), with illustrations showing sheep and goats, and the drying of meat.

Forbes-Lindsay, C. H.

Forbes-Lindsay, C. H.

Agriculture, pp. 107-112; planted grasses, p. 113; landownership, p. 114; gathered seeds and fruits, pp. 115-116; tobacco, p. 117; hunting, p. 118; fasts, p. 118; fishing, p. 119. Mainly concerns present-day life.

Forde, Cyril Darrell

Agriculture, pp. 107-112; planted grasses, p. 113; landownership, p. 114; gathered seeds and fruits, pp. 115-116; tobacco, p. 117; hunting, p. 118; fasts, p. 118; fishing, p. 119. Mainly concerns present-day life.

The tribes of the Yuman family, situated around the head of the Gulf of California. Habitat and neighbors, pp. 260-262; agriculture (maize, beans, cucurbits, other plants), pp. 263-267; gathering and hunting (fish, meat, salt, tobacco), pp. 267-270; material culture, pp. 270-280; bibliography, pp. 322-324.


GOODWIN, GRENVILLE.


The life of the Apaches about 1850 and brief consideration of the phases of that life that have continued to the present.

GREGORY, HERBERT E.

THE NAVAJO COUNTRY. U. S. Geol. Survey Water-Supply Paper 380, 219 pp., illus., maps. 1916.

A geographic and hydrographic reconnaissance of parts of Arizona, New Mexico, and Utah. Bibliography, pp. 199-208. See the index under agriculture and irrigation.

HARSHBERGER, JOHN W.


The last three pages have observations on the changes that are taking place in Hopi agriculture.

HASKETT, BERT.


HERITAGE, WILLIAM.


The Grand Portage, White Earth, Nett Lake, and Red Lake Indian Reservations and forestry.

HERMSTEAD, OSCAR.


The Promise Indian Farmers' Club in the northwestern portion of Dewey County, S. Dak., the joining by six of their group of the Dewey County Farm Bureau, and the agriculture practiced by these Indians.

HEYWOOD, JAMES.


HILL, WILLARD WILLIAMS.

THE AGRICULTURAL AND HUNTING METHODS OF THE NAVAHO INDIANS. 194 pp., illus., maps. New Haven, Yale Univ. Press. 1938. (Yale Univ. Pubs. Anthrop. 18.)

Introduction (territory, annual cycle, daily round), pp. 11-19; Agriculture (field location, ownership, preparation for planting, planting, cultivation, harvesting, storage, crop utilization, nonfood plants, introduced plants, summary), pp. 20-51; Agricultural Ritual (observances and beliefs, minor rituals, major ceremonies, rain ceremony, summary), pp. 52-85; Hunting (mythological background, education in ritual hunting, ritual hunting, summary), pp. 96-106; Nonritual Hunting (summary), pp. 107-176; Conclusion (the ritualization of everyday behavior, Navaho culture in relation to neighboring cultures), pp. 177-190; Bibliography, pp. 191-193.


Hodgson, W. O.

"The Pima, Papago, and Maricopa Indians, who live in this country and who are the particular subjects of this article, are primarily farmers and stock raisers. ...."

"Last year authority was granted by the Indian Office in Washington for sixty acres of the school farm at Sacaton to be divided up into ten-acre fields. This unit of ten acres was deemed advisable because in all probability when the Indians receive their allotments in severality, each allotment will consist of a ten-acre tract of tillable land."

Hoover, J. W.

Plimería, land of the Pimas and Papagos; the Gila River and its changed character; the terraces of the Gila River in relation to Pima culture; economic conditions of the Pimas; the Mohave Indians; the Papago and the Papagueria; the mountain country and peoples.

See also the author's article entitled "Navajo Nomadism" in Geog. Rev. 21: 429-445, illus. (July 1931).


"Eastward from the Grand Canyon of the Colorado in Arizona, the Navajo realm stretches to the 108th meridian in New Mexico, and from the Little Colorado River northward to the San Juan River in Southern Utah. The solid block of Navajo reservation area includes 25,000 square miles or 16,000,000 acres. .... The real Navajo country—the country occupied chiefly by Navajo—comes nearer to 28,000 square miles, an area larger than Ireland."

"Incongruously this vast area set aside for the Navajo Indians, with a density of population of about two per square mile, is overcrowded, though it appears vacant."

"The Indian population of the reservation area is estimated to include 46,000 or more Navajo, about 3,000 Hopi, and 100 Piute. The entire white population comprises not more than 2,000 traders, missionaries, teachers, and other government employees."

The land problems incident to this situation are discussed under the following headings: The land; vegetation associations; economic adjustments of the Navajo to their land; the problem of erosion; causal factors of the accelerated erosion; rehabilitation of Navajo lands, the Navajo Erosion Control Project; utilization of vegetation cover; rodent control; reduction of Navajo flocks; cooperative, protective, and highway projects; improvement of Navajo stock; recourse to farming; remunerative employment.

A map delineates the Navajo Indian Reservation and illustrations show a typical hogun, a flock of sheep, a cornfield, a farming community, examples of erosion, and examples of efforts to check erosion.


Fields and crops are considered on pp. 434-440. Other subjects included are: The villages; the mesas; water and fuel supplies; arts; movements of population, past and present; bibliographical footnotes. Summary by Charles M. Davis in Social Sci. Abs. 3: 14935 (October 1931).

Hough, Walter.


The report of the survey made by Lewis Meriam, technical director; Ray A. Brown, Henry Roe Cloud, Edward Everett Dale, Emma Duke, Herbert R. Edwards, Fayette Avery McKenzie, Mary Louise Mark, W. Carson Ryan, Jr., and William J. Spillman, who spent 7 months in field work and 8 months in office work investigating present conditions among the Indians.

Agriculture, grazing and stock farming, and irrigation of Indian lands are considered on pp. 488-515.

For comment on this report, see John Collier, "Hammering at the Prison Door," in Survey 60: 389, 402-406 (July 1, 1928); and Francis Fisher Kane, "East and West: The Atlantic City Conference on the American Indian" in Survey 61: 472-474 (Jan. 15, 1929). This conference of "over eighty men and women, representing practically all the Indian defense associations in the country, as well as the church organizations, . . . approved the Meriam report." The article entitled "Economic Situation of the American Indians" in the U. S. Bur. Labor Statis. Monthly Labor Rev. 27: 690-703 (October 1928) is a summary-review of the report.

KINNEY, J. P.

Historical background of the policy toward Indian lands; present policies and problems in administering the forests owned by the Indians; the administration of grazing on Indian lands.

A CONTINENT LOST—A CIVILIZATION WON; INDIAN LAND TENURE IN AMERICA, 366 pp., illus. map. Baltimore, Johns Hopkins Press. 1937.

1. Indian Land Tenure Policy during the Colonial Period, pp. 1-26;
2. The Agitation for the Removal of the Indians, 1776-1832, pp. 27-80;
3. Early Indications of an Allotment Policy, 1633-1832, pp. 81-102;
4. Experimentation with an Allotment Policy, 1833-1871, pp. 103-102;
5. The Acceptance of a General Allotment Policy, 1872-1887, pp. 103-213;
6. Allotment Purpose Defeated by Lease and Sale, 1888-1909, pp. 214-248;
7. The Development of Reservation Resources, 1910-1936, pp. 249-321;
8. The Past, the Present, and the Future, pp. 322-343; Bibliography, pp. 345-349;
Appendix (map showing tribes of North America; table showing total area of Indian lands, 1871-1933; table showing areas of restricted lands on Indian reservations).

The volume is reviewed as follows: Joseph A. Batchelor in Amer. Econ. Rev. 27: 546-547 (September 1937); Randolph C. Downes in Miss. Val. Hist. Rev. 24: 252 (September 1937); Paul Wallace Gates in Amer. Hist. Rev. 43: 635-636 (April 1938); Alban W. Hoopes in Social Studies 29: 131 (March 1938); Rupert N. Richardson in Southwest Hist. Quart. 42: 150-152 (October 1938); H. A. Smith in Jour. Forestry 35: 601-604 (June 1937).


The Emergency Conservation Work made substantial physical improvements on Indian land.

AN INDIAN TRIBE PRACTICES FORESTRY; ON THE MENOMINEE RESERVATION FOREST PRACTICE HAS BROUGHT RESULTS. Amer. Forests and Forest Life 34: 532-534, illus. September 1928.

The Menominee Reservation consists of 10 townships along the Wolf River and its tributaries and the south branch of the Oconto River, 50 miles northwest of Green Bay, Wis.

The illustrations show an area left after the selective cutting of 1926 on the Menominee Reservation was completed; the nursery and seedbeds on the reservation: spruce transplants in the Menominee nursery.
Background of the Wheeler-Howard Bill. The Indians were becoming more and more dependent on Government relief.

Under Commissioners C. J. Rhoads and John Collier, the Bureau of Indian Affairs has reversed many previous policies.

A Navaho boy's work in herding sheep and goats.

"The art of weaving is comparatively a new art among the Navajos ... he learned it from the Pueblos and since the introduction of sheep into his country by the Spaniards. It is certainly not more than three hundred years since he began to weave, if that long."

"The ecology of most Indian reservations is not only a zoological and botanical problem, but it is also fundamentally influenced by the dominant economic problem of how to make all of the United States yield all of its citizens a reasonable standard of living."—p. 161.

Description of the Vigita or harvest festival of the Papago Indians of the Santa Rosa Valley, held the last of November, supposedly every 4 years.

Report on the comments of Mary McLean, who spent many years among the Hopi Indians of Arizona.

The Crow Indian Industrial Fair on the reservation in Montana.
MERRITT, EDGAR B.
THE AMERICAN INDIANS AND THE GOVERNMENTAL INDIAN ADMINISTRATION.
Agriculture, pp. 7-8; Indian timber, p. 12; Indian irrigation projects, p. 12.

MOULTON, ROBERT H.

MUSGRAVE, M. E.
Improving present Navajo farm land by scientific distribution of floodwaters.

The Hopi and Navajo ways of conserving moisture in farming. The illustrations show Navajo cornfield, corn husking, the use of a planting stick, and corn partly roasted for winter use hung outside a Hopi house.

Activities of the Soil Conservation Service in rehabilitating Navajo lands.

OPLE, M. E.
Agriculture and wild plant foods, pp. 206-207; hunting and fishing, pp. 207-208.

PHAYNE, IGNATIUS.
Review of United States Indian policies, with emphasis on the literature about them and recent reforms.

PRESTON, PORTER J., and ENGLE, CHARLES A.

REAGAN, ALBERT B.
Modern Implements, p. 118; products of manufacture, pp. 118-123; hunting and fishing, pp. 123-126; food, p. 127; wild or Indian rice, pp. 127-128; maple sugar, pp. 129-130; berries, p. 130.

ROBERTS, FRANK H. H., JR.
See pp. 4, 26, 103, 164. Bibliography, pp. 179-186. Plate 20 is of two views of floodwaters following a rain.
Schmeckebier, Laurence F. (603)
In ch. 2, Activities, pp. 143 ff., consult such topics as the following: Making allotments in severalty; supervision over real estate; education of the Indian (kinds of schools, course of study, etc.); promoting industrial advancement (irrigation, water supply, and drainage; promotion of agriculture and stock raising; promotion of home economics; etc.). See also the section of the bibliography on education and citizenship, pp. 558-560, and on property questions, pp. 565-573. Review by Joseph C. Green in Amer. Hist. Rev. 34: 857-860 (July 1929).

Seager, F. W. (604)
Hoopa basket weaving.

Sergeant, Elizabeth Shepley. (605)
Recent accomplishments of the Office of Indian Affairs.

"A report from the field on the effect of government policy on the Indians, this article is also a sympathetic and understanding picture of New Mexico pueblos. It regards Indians not as art objects but as human beings."—Subtitle.

Seymour, Flora Warren. (607)
The clash of different cultures; status of Indian agriculture; Indian ideas of landed property; conquest and land titles; tribal versus individual rights to land; land tenure under the reservation policy; the attempt to make Indian farmers; land tenure as factor encouraging Indian farming; disposal of surplus lands; the rigidity of Indian customs; leasing Indian allotments; difficulties of allotment policy; land policy, citizenship, and liquor regulation; the Burke Act of 1906; conditions of landownership in fee simple; remnants of tribal property; sales of Indian lands; result of allotment policy; persistence of tribal customs; present status of Indian land tenure; results of policy of making Indian farm owner-operators.

In opposition to policies carried out under the Indian Reorganization Act.

Sipe, Susan B. (609)

Smith, John F. (610)

Sniffen, Matthew K. (611)
An article by the secretary of the Indian Rights Association.

Speck, Frank G., and Speck, Florence L. (612)

Steele, G. F. (613)
200256-41-6
Stevens, Alden. (614)

Appraisal of Indian affairs under John Collier’s New Deal administration

Story, Isabelle F. (615)

Swift, Lucy G. (616)
The feast of the Indians along the Rio Grande on November 1.

Underhill, Ruth M. (617)

United States Bureau of the Census. (618)

United States Bureau of Labor Statistics. (619)


Under the Indian Reorganization Act, livestock, farm machinery, and marketing cooperatives have been formed.


Activities of Indian Arts and Crafts Board of the Department of the Interior.

United States Congress, Senate, Committee on Indian Affairs. (622)

Wenz, Alfred. (623)
The corn growing of the Mandan Indians on the upper Missouri River.

Wheeler, L. R. (624)

Present-day Indian use of huckleberries along the Columbia River.

Wilson, Charles Morrow. (625)

Present conditions on the Navajo Reservation, including agriculture.

Wilson, Owen. (626)

Three of the pictures are of Pima Indian farmers; one is of a schoolhouse.

Wissler, Clark. (627)

Throughout practically all of Canada and the United States, Indian contact with the white men resulted in conflict, armed or economic, followed by settlement of the natives on reserves; it is estimated that the aboriginal population diminished by 40 percent through these causes, but since about 1890 it has been increasing. Summary under the title “Vanishing American No Longer Vanishes” in Lit. Digest 118(11): 17, 32, illus. (Sept. 15, 1934).
WOELKE, WALTER V. 


Trying to stop erosion on the southwestern Indian reservations. 


Efforts to stop overgrazing and soil erosion on the Navajo Reservation. 

WOJTA, J. F. 


The 2-day Indian Farmers' Institute held at Lac du Flambeau, Vilas County, Wis., in April 1919. The illustration shows Indians taking lessons in judging seed corn and cutting seed potatoes. 


The illustration shows Indians judging dairy cows at an Indian farmers' institute. 

WISCONSIN INDIANS IN FARMING. Wis. Archeol. 6: 115-119. September 1927. 

A resume of what has been done to give the Indians of Wisconsin help in bettering their farming methods. Members of the Menominee tribe started the movement by making a request of the Agricultural Extension Service in 1914. 


The red cliff Chippewa; Chippewa Indians at La Pointe Reservation; a trip to the Menominee Indian Reservation; first Menominee Indian farmer's institute; Winnebago council of food preparedness. 

See also items 17, 21, 24, 224, 233, 344, 370, 391, 485, 488, 492.
UNCULTIVATED PLANTS USED BY THE AMERICAN INDIANS

FOOD AND INDUSTRIAL PLANTS

ANONYMOUS.


Use of roots of the waterlily, probably *Nuphar advena*, by the Indians for food.


*Ammobroma* growing wild in dry area may help prevent famine among Indians. Found in desert hills of southeastern California. Used from time immemorial by Papagos as food.


Popular account of nature and uses.

ALCOBER, GABRIEL V.


ALTAMIRANO, FERNANDO.


Trabajo leído en el XI Congreso Internacional de Americanistas, reunido en la Ciudad de México del 15 al 23 de Octubre de 1895.

ANDRADE, ALFREDO ANT DE.


Vernacular names. Three colored plates. Bibliographical footnotes.


BARBOSA, DAVID PESCOTT.


Note particularly ch. 5, Plant Materials Used in Manufactures and Arts, pp. 45-50; ch. 6, The Gathering, Preparation, and Storing of Foods, pp. 50-54; ch. 7, Food Plants of the Conhuilla Indians, pp. 54-73; ch. 8, Drinks, Narcotics, and Medicines, pp. 73-82; bibliographical footnotes.


BARRY, J. NEILSON.


Oregon Territory is the region covered by the study. Bibliographical footnotes.

78
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BARTRAM, WILLIAM.  
(642)  
OBSERVATIONS ON THE CREEK AND CHEROKEE INDIANS, BY WILLIAM BARTAM, 1789.  
Disease and remedies, pp. 48-47; food and means of subsistence, pp. 47-50.  

BECKWITH, MARTHA WARREN.  
(643)  
NOTES ON JAMAICAN ETHNOBOTANY; 1, PLANT MEDICINES; 2, FOOD PLANTS.  
47 pp. Houghkeepsie, N.Y., Vassar Col. 1927. (Folklore Found. Pubs. 8.)  
Index to references, pp. 1-2.  

BENEDICT, FRANCIS G., and STEEGERDA, MORRIS.  
Introduction, pp. 157-159; description of individual foods in the diet of the Maya (maize products, vegetables, meats and nonvegetable products, fruits, bread and crackers, miscellaneous, general information concerning the food of the present-day Maya), pp. 159-169; description of typical meals and food habits of the Maya, pp. 169-177; medicinal properties of Yucatan plants and animals listed in table 1, pp. 177-178; the food of the Maya in colonial times, as determined from the literature, pp. 178-180; composition and energy value of Maya foods and meals, pp. 180-187; summary, pp. 187-188. Abstract under the title Food of the Maya Indians in Nature [London] 139: 970 (June 5, 1937).  

BENOIST, RAYMOND.  
(645)  
Brunfelsia tastevini, nov. sp.; vernacular name, keya-honé.  

BERTONI, GUILLERMO.  

BOURKE, JOHN G.  

BROWN, ROBERT (OF CAMPSTE).  

BRUMP, LUCIEN.  
Unusual foods of the Mexican Indians, especially corn affected by black rust.  

BUSHNELL, DAVID I.  
Food, supply and preparation, pp. 8-10; baskets, pp. 13-15; medicinal plants and treatment, pp. 23-24. Plate 7 shows an old mortar made of black gum; plate 8, an Indian woman pounding corn in a wooden mortar.  

CAMERON, C. R.  
MATÉ: AN IMPORTANT BRAZILIAN PRODUCT. Jour. Geog. 29: 54-70, illus., maps. February 1930.  
Introduction; harvest and production of maté; the planting of maté; commerce.  

CANDOLLE, ALPHONSE DE.  
CASTETTER, EDWARD W. (653)
(Ethnobiol. Studies Amer, Southwest 1.)

CHAMBERLAIN, LUCIA SARAH. (654)
"The following list of plants used by the North-American Indians inhabiting the country east of the Mississippi River was compiled during a course given to students of Radcliffe College in 1899-1900, at the Peabody Museum, by Dr. Frank Russell of the Department of American Archaeology and Ethnology of Harvard University." The English common names are given; they are arranged according to their uses under the name of the Indian tribe. List of the works from which the information was obtained, pp. 9-10.

CHAMBERLIN, RALPH V. (655)
Also issued under the same title as Amer. Anthrop. Assoc. Mem. 2 (5) : 329-405 (May 1911). Here the subject is considered under the following subheadings: Vegetal products used as food; beverages; chewing-gums; smoking; domestic objects; habitations; medicinal plants. Pp. 390-405 give a list of plants according to scientific names, with popular and Gosiute equivalents.

CHAMBERLIN, RALPH V. (656)
Lists of plants according to scientific names, pp. 32-37; alphabetical list of plants according to Ute names, pp. 37-40.

CHESNUT, VICTOR KING. (657)

CLAUDE, JOSEPH. (658)

CLINTON, DeWITT. (659)
See the following: Note 32, pp. 127-128, on food plants used by Indians; note 33, pp. 128-131, on wildrice; note 34, pp. 132-133, on wheat; note 35, pp. 133-134, on fodder grasses; notes 36 and 37, pp. 134-138, on geographical distribution and introduction of plants.

COVILLE, FREDERICK VERNON. (660)
General remarks; material to be collected; description of specimens, and notes; aboriginal uses of plants.

COVILLE, FREDERICK VERNON. (661)

COVILLE, FREDERICK VERNON. (662)
A detailed record of the methods used by the Indians in harvesting and preparing their crop of wokas, or waterlily seed, on Klamath Marsh which contains about 10,000 acres of a solid growth of wokas.
The illustrations include views of the following: A wokas gatherer's camp; wokas gatherer's boat and pole; 1 day's harvest of two women; wokas on a mealing stone; wokas drying pile and implements; Indian extracting wokas seeds.
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Dahlgren, B. E.


"Long before the discovery of the American continent, cacao was used and cultivated from Mexico to Ecuador. It is thus a distinctly American contribution to the world’s food resources."

Densmore, Frances.


Most of the monograph is devoted to plants used as food and medicine, plants used as dyes, plants used as charms, and plants used in useful and decorative arts.

Review by T. F. McIwraith in Canad. Hist. Rev. 10: 301 (December 1929); and Willoughby M. Babcock in Minn. Hist. 10: 440-441 (December 1929).

Essig, E. O.


Insects eaten by the Indians, both in the past and at present.

Fewkes, Jesse Walter.


A fragment of a study originally undertaken by J. G. Owens and J. Walter Fewkes on the foods and resources of the Hopi Indians.

Franciscans, Saint Michaels, Arizona.


Classified plant list, pp. 179-203; Navaho foods, pp. 204-220; sheep raising, pp. 257-259; agriculture, pp. 259-270.

Gerard, W. R.


Gilmore, Melvin Randolph.


The scientific name of the ground bean is Falcata comosa.

Indian Food Products from Native Wild Plants. Good Health 61(9): 18-19, 46; (10): 12-13, 28, illus. September, October 1926.

The article deals largely with wild rice (Zizania aquatica); seeds of wild sunflower (Helianthus annuus); ground bean (Falcata comosa); and all kinds of native nuts.

Summary under the title "Corn as the Indians Cooked It" in Lit. Digest 90(8): 29, illus. (Aug. 21, 1926). One illustration shows green ears, still in their husks, being laid on a bed of willow poles; the other, the roasting process.


The American Ethnobotanical Garden was begun in 1925 by the Museum of the American Indian, Heye Foundation, on a tract of land given by Archer M. Huntington in the Bronx near Pelham Bay Park at the suggestion and under the direction of Dr. Gilmore. The University of Michigan is developing a similar botanical museum. It is known as the Ethnobotanical Museum.
GILMORE, MILVYN RANDOLPH.

INDIAN LORE AND INDIAN GARDENS. 39 pp., illus., maps. Ithaca, N. Y., Published under the auspices of the Coordinating Council on Nature Activities by the Slingerland-Comstock Co. 1930.

The Indian Garden, pp. 27-28; native plants as used by Indians, pp. 32-33; nuts and seeds, pp. 34-35; native wild fruits, pp. 35-36; plants used for making teas like beverages, p. 36; sugar sources, p. 37; plants used for perfumes, p. 37; plants used for dyes and stains, p. 38; fiber plants, p. 38; gums and resins, p. 38; some plant remedies, p. 38; and the list of useful books for understanding Indian life, p. 39.


The fundamental difference in the attitude of mind of white people and of Indians with regard to the indigenous fauna and flora.


A proposal for outdoor museums or gardens with the natural growths of the region. Special attention is given to plans for a park for the grounds of the State Capitol at Bismarck, N. Dak.


The result of inquiry among the Oglaia Dakota on Pine Ridge Reservation, August 1912.


This monograph is an attempt to ascertain the relation of the native people of the plains to one phase of their indigenous physical environment. The region specially represented is Nebraska, and the Teton, Dakota, Omaha, Ponka, and Pawnee localities. Bibliography, pp. 153-154. Also issued separately. For a review see A. L. Kroeber in Amer. Anthrop. 22: 384-385 (October-December 1920); and O. A. Stevens, "Uses of Plants by the Indians," in Science 52: 99-101 (July 30, 1920).


Part of the findings of the archaeological explorations conducted on the upper course of the White River in Carrol and Benton Counties in Arkansas, and on the Elk River in McDonald County, in the southwest corner of Missouri in the spring and summer of 1922 and the early part of 1923 by the Museum of the American Indian, New York. List of the species of seed-bearing plants in taxonomic order by families from the lower to the higher, pp. 93-102.

GODDARD, PLINY EARLE.

LIFE AND CULTURE OF THE HUPA. 88 pp., illus. Berkeley, Univ. Press. 1903.

(Calif. Univ. Pub., Archaeol. and Ethnol., v. 1, No. 1.) See pp. 21-32 on food.

GORE, JAMES HOWARD.


GORMAN, MARTIN W.

ECONOMIC BOTANY OF SOUTHEASTERN ALASKA. Pittonia (1896) 3: 65-85.

The fruit of the giant cactus supplied the Papago and Pima Indians with a variety of edible products.

ÜBERSICHT DER BISHER IN ALTEPERUANISCHEN GRÄBERN GEFUNDENEN PFLANZENRESTE. In Festschrift Eduard Seler, pp. 157-158, illus. Stuttgart, Strecker und Schroder. 1922.


Probably Arum triphyllum.


"To the World's Fair in 1893 was brought a unique collection of objects obtained through the liberality of Mr. Hazzard by the Wetherill brothers in the Mancos cañon, Colorado. Never before in the history of American archaeology had such a complete series of objects been brought together for study and comparison. The University of Pennsylvania was fortunate in securing through the efforts of Mr. Culin the loan of the entire collection, which stands unrivalled in showing a large series of interesting things; plant products in the form of food, dress, and household utensils being very largely represented. It is to the description of the plants and plant products that this article is directed." The article is also in Amer. Antiquarian Soc. Proc. (1896) 18: 73-81.


The illustration shows a statue of Sacagawea, the Indian woman guide of Lewis and Clark, in Portland, Oreg. She introduced the carums and was the first to disclose the tastiness of these plants to white men. The fruit of three species of Umbelliferae, Carum kelloggii, C. gairdneri, and C. oreganum, was used by Klamath Indians, who originally called it "kash."


List of plants utilized by Hopi Indians arranged according to uses, pp. 142-150; systematic list of species, pp. 152-155.
The plants, considered and later enumerated, are grouped into a number of classes, according to their uses for food, house building, dress and adornment, domestic life, arts, agriculture and forage, medicine, religion, and folklore.

HUGH, WALTER.
THE HOPI IN RELATION TO THEIR PLANT ENVIRONMENT. Amer. Anthrop. 10:33-44. February 1897.

The plants, considered and later enumerated, are grouped into a number of classes, according to their uses for food, house building, dress and adornment, domestic life, arts, agriculture and forage, medicine, religion, and folklore.

Hrdlička, Ales.


Joyce, T. A.

Historical inquiry into the origin and use of yerba maté. Bibliography, pp. 327-328.

Labarre, Weston.

Indian use of plant substances in the past and present for undistilled alcoholic liquors.

Lampman, Ben Hur.

The Sagittaria latifolia, or arrowhead, the famous wapatoo of the Multnomah Indians. Its tubers were used for food.

Lauffer, Berthold.

A careful statement of the significance of plant cultivations in the development of mankind. In reference to the United States, the author recognizes four strata of plant cultivations: (1) Those peculiar to the aborigines of America, subsequently adopted by the white settlers, who also succeeded in cultivating wild species of North America; (2) plants introduced from England in colonial times; (3) American plants introduced from the West Indies in the seventeenth and eighteenth centuries; (4) numerous plants brought over from China and Japan from the eighteenth century onward to the present day. Detailed attention is given to the potato and the pineapple.

Lea, Frank T.
INDIAN BREAD MAKERS IN YOSEMITE. Overland 64:24-26, illus. July 1914.

A brief account of the process of collecting and preparing acorns for food by the Yosemite Indians, a process which has been followed perhaps for centuries. The illustration shows one of the Indian bread makers posing in her cabin.

Lloyd, John Uri.
ORIGIN AND HISTORY OF ALL PHARMACOPOEIAL VEGETABLE DRUGS, CHEMICALS, AND PREPARATIONS WITH BIBLIOGRAPHY. VEGETABLE DRUGS. V. 1, 449 pp., illus. Cincinnati, Caxton Press. 1921.

Prepared under the auspices of and published by the American Drug Manufacturers' Association, Washington, D. C. Consult table of contents and index for references to pertinent material. Bibliography, pp. 357-424.

Loesener, Theodor.

Maldonado, Angel, and Maldonado, Eduardo.

Bibliografía, p. 130.


Most of the article is devoted to the use and preparation of acorns by the Indians.


The diminishing Aleuts; wild vegetables; fish and meat; seaweed and berries; drying fish; housing conditions; a luxury in food.


Food, cultivated and other useful plants, pp. 321-324.


"All the forms of the vegetable world which the aborigines use for medicine, food, textile fabrics, ornaments, etc." are considered as coming under the word botany as employed in this paper.

See also ch. 38, Aboriginal Botany, pp. 419-431, of the same author’s Tribes of California (Washington, Govt. Printing Off., 1877), issued by the Department of the Interior’s United States Geographical and Geological Survey of the Rocky Mountain Region as v. 3 of his Contributions to North American Ethnology.

Reagan, Albert B. (720)
"The Hoh and Quileute Indians . . . live on the west side of the Olympic peninsula, about due west of Seattle, Wash. The Quileutes occupy the village of La Push, which is near Mora, at the mouth of the Quillayute river, five miles down the coast from Cape Johnson and thirty-six miles down the coast southwest of Cape Flattery, while the Hohs live in the Indian village of Hoh at the mouth of the Hoh river, near Destruction Island, twelve miles southwest of La Push. These Indians were great users of the plants of the region in the old days, and still do use some of them."—p. 55.

The present-day situation.

Use of kinnikinic, an intoxicating herb; cascara sagrada bark used as medicine; salmon berry sprouts used in courting ceremonies long ago; pit baking; preparing various foods; various uses of cedar, other than that of canoe manufacture; the canoes; eating rootstalks of the horsetail plant; foxglove flowers for decorative purposes.

Bibliography, pp. 119-120.

Rusby, Henry H.
Beverages made by the Indians from plants.

The titles of the installments vary. The subject is considered by the month in which the food plants are prominent. There are many illustrations.

Rydberg, Per A.
Notes on the collections made by M. R. Gilmore.

Safford, William Edwin.


Also revised and reprinted separately.
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SAFFORD, WILLIAM EDWIN.


SAUNDERS, CHARLES FRANCIS.


SEARS, PAUL B.


The conclusions in this paper are due to work by two students, Anna Shephard and Mabel E. Bridges.

SHEA, AGNES.


SMITH, HURON HERBERT.

   Foreword, pp. 8-9; introduction, pp. 10-14; Menomini vegetal medicines, pp. 14-20; Menomini medicinal plants, pp. 21-58; Menomini vegetal foods, pp. 59-60; Menomini food plants, pp. 60-72; Menomini vegetal fibers, pp. 72-73; Menomini fiber plants, pp. 73-77; Menomini vegetal dyes, pp. 77; Menomini dye plants, pp. 77-79; miscellaneous uses of plants, pp. 79-82; finding list of plants by scientific name, pp. 83-92; by English name, pp. 92-102.
   Review under the title "Uses of Native Plants by the Menomini," in Wis. Archeol. 3: 24-26 (January 1924).

   Vegetal medicines; medicinal materials; vegetal foods; food plants; vegetal fibers; fiber plants; vegetal dyes; dye plants; miscellaneous use of plants; finding list of plants, pp. 275-302. The Meskwaki reservation is in Tama County, Iowa.

SPARKMAN, PHILIP STEDMAN.

   Vegetable food, pp. 193-197; articles made of plant fibers, pp. 202-203; plants used by the Luiseños, pp. 228-229.

SPIDEN, HERBERT JOSEPH.

   Food and its preparation, pp. 200-207, includes material on camas, pouce, other roots, berries, and famine foods. Bibliography, pp. 272-274.

   A note written on the occasion of the campaigns to change food habits during the World War.

STEEDMAN, ELSIE VIAULT, EDITOR.

   Introduction; plants used as medicines, pp. 455-477; plants used as food, pp. 477-492; plants or parts of plants chewed; plants made into nonmedicinal drinks; plants used for smoking; plants used in manufacture; plants used in making dyes and paints; plants used as scents; plants used for purification; plants used as charms; plants concerning which there are special beliefs; plants mentioned in mythology; poisonous plants; plants used especially as horse and dog medicines; plants used as food by animals; alphabetical list of families with genera and species; alphabetical list of genera and species; index.
STEVENS, ORIN A.
A summary based on item 680.

STEVENS, MATILDA COXE.
(1908-09) 30: 31-102, Illus.
Introduction, pp. 35-38; medical practices and medicinal plants, pp. 39-64;
edible plants, pp. 65-76; use of plants in weaving, pp. 77-79; use of plants in
dyeing, p. 80; use of plants in basketry, p. 81; use of plants in pottery
decoration, p. 82; use of plants for the toilet, p. 83; use of plants in folklore,
pp. 84-85; clan names and other names derived from plants, p. 86; ceremonial
uses of plants, pp. 87-100; list of plants, pp. 101-102.
A summarizing review under the title "Ancient Botany of the Zuñi Indians"

STOUT, A. B.
March 1914.

STOWE, GERARD C.
Plants as medicine; plants as food; seasonings; vegetables; plants used
as dyes; plants used as charms.

SWANTON, JOHN R.

SWEETSER, ALBERT RADDIN.
1932.
"These notes consist of edited compilations from various sources. . . .
Their purpose is simply to put into a form, easily available. . . . a bit
of the history of some of our common wild plants, the origin of their names.
and some of the uses to which they were put by the Indians and early
settlers."
Cow-parsnip (Heracleum), pp. 51-54; tobacco, pp. 54-56; kinnikinnick, pp.
56-58; Oregon tea, yerba buena, pp. 58-59.

TAYLOR, WILLIAM A.
THE FRUIT INDUSTRY, AND THE SUBSTITUTION OF DOMESTIC FOR FOREIGN-GROWN
This section is reprinted in U. S. Dept. Agr. Yearbook 1925: 110-111. See
also Cultivation of Native Fruits, pp. 307-308.

TESCHAUER, CARLOS.
ALGUMAS NOTAS SOBRE ETNOLOGIA E "FOLKLORE" NA FLORA E AVIFAUNA DO

TORREY, JOHN.
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INDEX

Berries 7
9, 14, 18, 20, 47, 65, 112, 224, 226,
231, 322, 380, 601, 624, 712, 722, 740

See also Fruits; also under specific
berries.

Berry, J. B. 226

Bertonio, ELLERMO 646

Beverages 18, 20,
39, 48, 90, 112, 134, 208, 264-265, 306,
649, 655, 674, 692, 699, 717, 724, 742

See also Batido; Chocolate; Coffee;
Intoxicants; Tea; Yerba maté.

Bugs 6, 38, 65, 112, 134, 208, 264-265, 306,
649, 655, 674, 692, 699, 717, 724, 742

See also Batido; Chocolate; Coffee;
Intoxicants; Tea; Yerba maté.

Bugor, H. H. 387-330

Birch 151

Birds 121, 134

Bitterroot 754

Bracken, C. J. 516

Blackburn, G. A. 34-35

Blackfoot Indians 238, 432

See also Montana.

Blum, F. A. 196-197

Bloom, Indians 588, 628

Bois, D. 153

Bois Fort Chipewas 492, 601, 719, 815-816

See also Chipewas; Minnesota.

Bowers, G. B. 239, 517-518

Brown, D. 85-97, 209

Buch, G. 73

Brauch, CH. 769

Brazil 639, 649, 651, 760

See also Cacao; Coffee; Cacao
ton; Nuts; Rubber; Tobacco;
Yerba maté.

Breast (probably Arum triphyllum) 687-688

Brewer, W. H. 340

Brewers 386

Brown, T. M. E. 735

British Columbia. See Canada.

Bromeliaceae 90

Bruck, G. 502

Brooks, HARLOW 770

Brooner, J. V. 224

Brown, C. 319, 420

Brown, E. 484

Brown, E. M. 1

Brown, W. 345

Brown, Robert 648

Brown, C. A. 39

Bruce, P. 315

Bruno, H. J. 40

Bruno, Lucien 649

Brunfelsia 645

Brut, DECEL 485

Bryan, BRENN 519

Bryan, KIRK 519

Buchanan, J. 3, 17, 80, 115, 229, 289, 492, 513

Buck, S. M. 41, 441

Bunting, MARTHA 520

Bureau of American Ethnology. See
United States Bureau of American
Ethnology.

Bureau of Plant Industry 609

Burma 791

Burke Act (1906) 510, 520, 697

Hurlston, W. L. 341

Hurlston, W. L. 341

Hurlston, W. L. 202

Hurlston, W. L. Jr. 42, 516, 650

Hurtman, C. H. 118

Butterfield, H. M. 145

C

CABRERA, ANGEL 416

Cacilla. See Peyote

Cacao 20, 74, 79

90, 101-103, 105, 134, 196, 663, 717

See also Medicine, plants.

Chenopodium, 728

Cherokee: Corn; Cress

Chesnut, V. K. 637

Chevalier, AUGUSTE 450

Chemehuevis 288

Chemistry 38-39, 63, 166, 703, 803, 819-829

See also Medicine, plants.

Chevalier, AUGUSTE 450

Cherokee: Corn; Cress

Ceramica 196, 222

Cereals 23, 243

See also Irrigation.

Cential, A. D. 196, 652

Cannabis 148

Carrot 722

Carbohydrates 62

Carson, MARJORIE 44

Casparius. See Peppers.

Carrion 418

Caribu 23

Caribou-eaters 88

Cashmere 825

Carrier Indians 825

Cariza Indians 831

See also Apaches.

Carups 691, 732

Cascara sagrada 682

Cassarh. 147

Cassava. See Manioc.

Cassity, L. J. 543

Castetti, E. F. 257, 263-268, 665

Catawbas 21, 747

Catching, J. S. 488

Catlin, G. 432

Cebib 282

Cedar 722

Ceramics. See Pottery.

Ceremonials

Cherokee 377, 804-805

corn 350, 358-359, 377-378, 389, 404, 405

courthship 722
duters 821, 823
general 26, 48

harvest 18, 20, 187, 888, 889

Hopi 514, 556, 607

Hopuus 350

Navajo 587

peyote 773, 775, 781, 809-810, 818, 827

sugarbush 437
tobacco 478

wildrife 498

See also Wildrice.

Zuni 744

See also Mythology.

Cerna, DAVID 774

Cedillo-Muñoz, WALTER 430

Chico Canyon National Monument 283, 289

Chincoteague, L. S. 654

Chincoteague, R. V. 655-656

Chiricahua 895, 742, 743, 783

Chicomyx 288

Chemistry 38, 39, 63, 166, 703, 803, 819-829

See also Medicine, plants.

Chenopodium, 728

Cheroots: Corn; Cress

Chesnut, V. K. 637

Chevalier, AUGUSTE 450
Drinks. See Beverages; Intoxicants; also under specific drinks.

Droughts. See Agriculture; Mixed cropping; Terrace farming.

Drugs. See Medicines; Narcotics.

Druks. See Medicines; Narcotics.

Dustin, Du Bois, G. 5, 254

Dwight, Bum

Duke, Emma 570

Dunn, C. F. 456

Dwight, B. P. 543

Dyes. 32, 80, 89, 94, 179, 183, 208, 226, 286, 299, 327, 514, 665, 674, 737-738, 742, 744, 746, 777, 795.

E

Earthen; sacred (Xochipacazti) 730-732

Earley, M. 553

East, E. M. 356

Eastman, E. G. 544

Eastwood, Alice 278

Eaton, G. F. 156

Ecology 857


Edward, E. E. 53

Edward, H. R. 575

Edgerly, L. G. 545

Egoleston, Edward 54

Elliot, W. T. 549-550

Emhart, E. W. 377

Engle, W. A. 600

Ennis, R. F. 157

Enst, A. G. 457


Erwin A. T. 357-358

Ewing, E. 6, 22-24

Essig, E. O. 566

Estabrook, E. F. 274

Ethnological gardens 59, 673, 676

Education 59, 673, 676

general references. See Agriculture.

types. See Dry farming; Flood-water farming; Foot-plow farming; Grazing; Irrigation; Mulpa agriculture; Mixed cropping; Terrace farming.

Farrin, Livingston 6

Faulkner, H. U. 56

Farriss, J. L. G. 44

Fertilization 32, 29, 28, 39, 104, 166, 278

Festivals. See Ceremonials, harvest.

Flewkes, J. W. 135, 667

Filbers 326-327, 406, 674, 714, 734, 737-739

Fisheries 8, 48, 51

Fiske, Joke 83, 222, 565, 557-558, 596, 601, 712

Flathead Indians 427, 754

See also Montana.

Flatter, A. C. 230, 549

Flax 27, 550-555

Flood-water farming 519, 595, 602

Florida 21, 245, 574

Fibroinobathy 52

See Gardens; also under specific flowers.

Folklore 514, 696, 744, 750

Foods 85

Foot-plow farming 147, 151

Forses Lindsay, C. H. 584

Ford, G. S. 55

Forest Potawatomi Indians 555-556

Forest 526, 534-535, 539-543, 545, 550-551

Forest 526, 534-535, 539-543, 545, 550-551

Foot-plow farming 147, 151

Fox, D. R. 68

Foxfire 722

Foxworthy, L. H. 57

Franciscans, Saint Michaels, Arizona 668

Frank, P. R. 37

Frison, Lawrence, Barbara 723

Frontier, clash of whites with Indians 17, 21, 24, 26, 58

Fruits 512, 563-564, 570-579, 593, 604

Fruits 512, 563-564, 570-579, 593, 604

Frontier, clash of whites with Indians 17, 21, 24, 26, 58

Fruits 512, 563-564, 570-579, 593, 604

See also under specific fruits.

Furrer, William 440

Furnas, R. W. 90

F

Fables 20, 56

Gabriel, H. 779

Gallop, Rodney 780

Gama grass 373

Gamio, Manuel 500

Ganof, W. E. 201

Garcia Payon, Jose 79

Gardens 5, 17, 20, 47, 49

Gardens 5, 17, 20, 47, 49

Garnet, B. 712, 762, 787

Garlic 70, 787

Garlic 133

Garlic 107

Garlic 107

Garlic 107

Garlic 107

Garlic 107

Georgia 21, 246, 249

See also Creeks.

Gerrard, W. 669

Gherkin, Achille 782

Gifford, E. W. 557-558

Gila Valley 233, 570

See also Arizona.

Gill, R. C. 783

Gilliam, C. E. 309

Gimble, M. R. 306-307

Gilmour, M. R. 301, 302

Gill, R. C. 783

Gilliam, C. E. 309

Gimble, M. R. 306-307

Gilmour, M. R. 301, 302

Gill, R. C. 783

Gilliam, C. E. 309

Gimble, M. R. 306-307

Gilmour, M. R. 301, 302

Gill, R. C. 783

Gilliam, C. E. 309

Gimble, M. R. 306-307

Gilmour, M. R. 301, 302

Gill, R. C. 783

Gilliam, C. E. 309

Gimble, M. R. 306-307

Gilmour, M. R. 301, 302

Gill, R. C. 783

Gilliam, C. E. 309

Gimble, M. R. 306-307

Gilmour, M. R. 301, 302

Gillis, Indians 682

Goodland, P. E. 682

Goodwin, Gretnille 559
INDEX

Gokb, J. H. 683
Gorman, M. W. 684
Gosline Indians. See Cotton
Gossypium. See Cotton
Graines 23, 32, 91-95, 101-105, 109, 112, 305
See also Corn
Grand Portage Reservation 564
See also Chippewas, Minnesota.
Graves 202
Gray, L. C. 245
Graying 574, 577, 744, 747, 750, 751-576, 576, 582, 629-629, 696
See also Livestock
Great Lakes tribes 83, 489
Great Plains. See Plains Indians.
Great Plains, Geog. 159
Great Plains, Hist. 786
Great Plains, Phil. 786
Great Plains, Topog. 786
Great Plains, Zool. 786
Guaraní 671-674
See see also Guay, J.
Guatemala 200, 203-204, 213, 218, 37, 717
See see also Guay, J
Guernsey, S. J. 294
Guerrero, J. C. 162
Guie, H. D. 785
H
Haas, W. H. 277
Haeberlin, H. K. 278
Haecker, W. D. 758
Haida Indians 453
Haines, Francis 423-424
Hal, 20, 40, 137, 82, 253
Hallowell, A. J. 364
Hall, S. 279-280
Hamilton, J. B. 250
Handley, A. 134, 546, 621
See also Arts; Pottery
Hanke, Lewis G. 689
Hankins, A. M. 491
Harkness, W. H. 492
Harcourt, R. D. 162
Handy, Oregon 103
Hargrave, L. 282
Harms, Hermann 868, 787
Harrington, J. P. 481
Harrington, T. 723
Harriots, G. H. 687-688
Harshberger, J. W. 396, 561, 689-690
Hart, A. H. 8, 248
Haskell, J. L. 562
Haskin, L. L. 691
Hauy, E. W. 37
Hawkins, A. 692-693
Havasupai Indians 271
Howell, F. M. 65
Hewett, A. See Sunflowers
Henday, G. W. 37, 367
Henquez 697
Hensley, H. W. 436
Hend-ten, Wyandot 308
Heracleum lanatum 768, 748
Herbs 446, 705, 777, 817
Herbst, A. 788
Hesse, C. G. 563-564
Heritage, William 563-564
Hermant, Paul 565
Hershey, W. 64
Herndon, C. A. 64
Herrera, F. L. 690
Herrington, William 190
Herren rubber tree 49
Hewett, E. L. 274
Hewett, J. N. B. 59, 673
Hey, Henry 666
Heywood, James 666
see also North Dakota
Highways 5, 184
Hill, A. J. 224
Hill, W. W. 567-568
Hill-Tout, Charles 482
Hidden, W. 217-219, 257
Hobomok 241
Hodgson, W. O. 569
Hogen, S. J. 68, 257
Hoggen, C. L. E. 217
Hodges, R. 597
Hoh Indians 720
Holmer, C. F. 238
Hollins, E. M. 789
Holmes, G. K. 65
Honduras 134, 208
Hooper, 804, 882
Howard, J. W. 570-572
See also Arizona; Southwest, United States.
Horses 418-433
Horses 5, 24, 134, 226, 252, 417, 742
Horedate plant. See Fruits. Geog.
Horticulture. See Fruits; Gardens.
Houk, T. H. 370
Hodgson, Donald 487
Hodgson, Walter 792
Hobart, Winifred 12
Humboldt, F. A. von 822
Hunt, P. B. 520
Hunter, J. D. 792
Huntington, D. M. 673
Huntington, Ellsworth 13
Hupa Indians 12, 83
Huron Indians 12, 83
Hyde, G. E. 401

I
Icorc paraguayense. See Yerba mate.
Ilinois country 388
Implement 2-7
Incas 138-187
See also 89-90, 104, 124, 134, 194, 222, 224, 237-238
Incas 247, 256, 298, 303, 305, 319-320
Incas 322, 337, 348, 363, 389, 391, 400-401, 601
Incas 138-187
See also 89-90, 104, 124, 134, 194, 222, 224, 237-238
Indiana 621
Indiana and Crafts Board. See Tecahoe.
Indians 509
Indiana Reorganization Act 509
Indians 506-508, 690-691
Indians 16
Indiana cultures 14, 15, 23-25, 40, 75-76, 78, 97-98, 116
Indiana 177, 200, 215, 235, 282, 295, 317, 328, 375, 381
Indians 4-7, 9, 13, 23-25, 56, 122, 571
Indians 4-7, 9, 13, 23-25, 56, 122, 571
Indo-See Dyes.
## INDEX

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insects</td>
<td>110, 212, 666</td>
</tr>
<tr>
<td>Intoxicants</td>
<td>17</td>
</tr>
<tr>
<td>Irrigation</td>
<td>3</td>
</tr>
<tr>
<td>Iowa</td>
<td>78</td>
</tr>
<tr>
<td>J. O. S.</td>
<td>427, 754</td>
</tr>
<tr>
<td>Japanese</td>
<td>643, 830</td>
</tr>
<tr>
<td>Jerusalem artichoke</td>
<td>107, 190</td>
</tr>
<tr>
<td>Jerusalem artichoke</td>
<td>114, 148, 151, 169, 174, 253, 267-268, 311-314, 345, 506, 516, 556, 560, 575, 593, 595, 600, 603, 607, 626</td>
</tr>
<tr>
<td>Kansas</td>
<td>333, 338, 383, 385, 389, 832</td>
</tr>
<tr>
<td>California</td>
<td>23, 25, 38, 393, 408, 447</td>
</tr>
<tr>
<td>Kentucky</td>
<td>234, 312</td>
</tr>
<tr>
<td>Croatia</td>
<td>461</td>
</tr>
<tr>
<td>Iowa</td>
<td>407</td>
</tr>
<tr>
<td>J. T.</td>
<td>323</td>
</tr>
<tr>
<td>K. W.</td>
<td>106</td>
</tr>
<tr>
<td>K. H.</td>
<td>372</td>
</tr>
<tr>
<td>K. H.</td>
<td>37, 48</td>
</tr>
<tr>
<td>J. H.</td>
<td>37, 105, 108</td>
</tr>
<tr>
<td>N. M.</td>
<td>292</td>
</tr>
<tr>
<td>K. S. W.</td>
<td>441</td>
</tr>
<tr>
<td>Kamia Indians</td>
<td>558</td>
</tr>
<tr>
<td>Kane</td>
<td>576</td>
</tr>
<tr>
<td>Kansas</td>
<td>234, 312</td>
</tr>
<tr>
<td>Kauai</td>
<td>443</td>
</tr>
<tr>
<td>Kauai</td>
<td>481</td>
</tr>
<tr>
<td>Kauk Indians</td>
<td>407</td>
</tr>
<tr>
<td>Kearney</td>
<td>323</td>
</tr>
<tr>
<td>Keokuk</td>
<td>372</td>
</tr>
<tr>
<td>Kempton</td>
<td>37, 873-375</td>
</tr>
<tr>
<td>Kente, Edna</td>
<td>703</td>
</tr>
<tr>
<td>Kirby</td>
<td>645</td>
</tr>
<tr>
<td>Kidder, A. V.</td>
<td>263-294</td>
</tr>
<tr>
<td>Kingsbury</td>
<td>703</td>
</tr>
<tr>
<td>Kinney</td>
<td>576-579</td>
</tr>
<tr>
<td>Kinnickut, L. N.</td>
<td>241</td>
</tr>
<tr>
<td>Kirk</td>
<td>204</td>
</tr>
<tr>
<td>Kirkland, E. C.</td>
<td>68</td>
</tr>
<tr>
<td>Kirkland, Indians</td>
<td>661-662, 669</td>
</tr>
<tr>
<td>Klawon, A. L.</td>
<td>13, 23, 103, 132, 433, 640</td>
</tr>
<tr>
<td>Kulahegu Indians</td>
<td>271</td>
</tr>
<tr>
<td>La Barre, Weston</td>
<td>309, 825</td>
</tr>
<tr>
<td>Lacy, M. G.</td>
<td>376</td>
</tr>
<tr>
<td>La Du, B. L.</td>
<td>592</td>
</tr>
<tr>
<td>La Farge, Oliver</td>
<td>580-581</td>
</tr>
<tr>
<td>La Fleche, F.</td>
<td>350</td>
</tr>
<tr>
<td>Laguna Indians</td>
<td>391</td>
</tr>
<tr>
<td>Lake Point Reservation</td>
<td>633</td>
</tr>
<tr>
<td>Lac du Flambeau Reservation</td>
<td>630-631</td>
</tr>
<tr>
<td>Lane, B. H.</td>
<td>700</td>
</tr>
<tr>
<td>Land</td>
<td>292</td>
</tr>
<tr>
<td>Language</td>
<td>76</td>
</tr>
<tr>
<td>Land</td>
<td>17, 72-73, 466</td>
</tr>
</tbody>
</table>
| Land 
| allotments. See Allotment policy. | 17-18 |
| Owners | 210, 514, 550-556, 557, 571, 577 |
| See also Tenure. | 661, 662, 669 |
| Land—Continued. | 5, 224 |
| policy toward Indian | 501, 507, 509-510, 516, 520, 526, 132, 520, 537-538, 542, 549, 575-583 |
| Langlois, General | 167 |
| Langworthy, C. F. | 32 |
| Lannan, Charles | 377 |
| Lantus | 69-70 |
| Latcham, R. E. | 14, 106-109 |
| Latimer, A. W. | 17 |
| Lauer, Bert | 442, 463, 701 |
| LA WALL, C. H. | 704 |
| Lawrence, D. H. | 378 |
| Lawson, Alexander | 80 |
| Lea, F. K. | 702 |
| Leding, A. R. | 310 |
| Lee, G. C. | 21 |
| Lehnis, D. | 732 |
| Leeks | 107 |
| See also Vegetable foods. |
| Legumes | 90 |
| Leguminous | 114, 150, 177, 268, 534, 562, 571, 576, 586, 603, 620, 628-629, 631, 698 |
| See also Animals; Dogs; Horses; Sheep. |
| Llaima | 148 |
| Llamas | 3, 5, 20, 181, 172-173 |
| Lloyd, J. U. | 703 |
| Lloyd, Trevor | 491 |
| Lobenher, Theodore | 704 |
| Loons. See Weaving. Lophophora williamsii. See Lophophora williamsii. | 775 |
| Lord Russell | 781, 820, 823, 825, 836 |
| Lorin, Henri | 880 |
| Louisians | 630 |
| Lounderfield, W. C. | 386 |
| Lowe, R. H. | 71, 146 |
| Lucumbas | 90 |
| Luiseño Indians | 730 |
| Lumbee Indians | 520 |
| Lusomia, Katherine | 586 |
| Lupines | 90, 148 |
| Lord | 294 |
| MacCady, G. O. | 76 |
| MacLeod, W. C. | 17, 72-73, 466 |
| MacReynolds, George | 736 |
| Magney | 5, 564 |
| Maine | 370 |
| Maize, See Corn. Maliconcho, Angel | 705 |
| Malcondo, Eduardo | 705 |
| Manchester, H. H. | 121 |
| Mandan | 352, 390-401, 628 |
| See also North Dakota. Mandelbaum, D. G. | 232 |
| Mandelung, F. C. | 84 |
| dance, 18, 20, 23, 106, 133-134, 148 |
| Mano | 303 |
| Marnelling, See Fertilization. Maple-Sugar | 434-437 |
| See also 12, 24, 58, 217, 224, 322, 601, 674 |
| Maricopa Indians | 569 |
| Mark, M. L. | 755 |
| Markley, M. C. | 297 |
INDEX

<table>
<thead>
<tr>
<th>Item</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARSHALL, ROBERT</td>
<td>530, 587</td>
</tr>
<tr>
<td>MARTIN, P. S.</td>
<td>298</td>
</tr>
<tr>
<td>MARYLAND</td>
<td>706</td>
</tr>
<tr>
<td>MARYLAND</td>
<td>107</td>
</tr>
<tr>
<td>MASON, ROBERT</td>
<td>21</td>
</tr>
<tr>
<td>MASON, ROBERT</td>
<td>18</td>
</tr>
<tr>
<td>MASON, T.</td>
<td>19, 707</td>
</tr>
<tr>
<td>MASON, T.</td>
<td>706, 786</td>
</tr>
<tr>
<td>MASON, T.</td>
<td>164</td>
</tr>
<tr>
<td>Mass. See Pages.</td>
<td></td>
</tr>
<tr>
<td>Massachusetts</td>
<td>353</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>241</td>
</tr>
<tr>
<td>Matt. See YumaMaté.</td>
<td></td>
</tr>
<tr>
<td>MATTHEWS, WASHINGTON</td>
<td>299</td>
</tr>
<tr>
<td>MAXWELL, H.</td>
<td>706, 786</td>
</tr>
<tr>
<td>MAYAS</td>
<td>190-216</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>See also</td>
<td>2, 5, 18, 20, 61, 86, 128, 148, 644, 704</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Maydae</td>
<td>381</td>
</tr>
<tr>
<td>MAYS</td>
<td>800</td>
</tr>
<tr>
<td>MCBRIDE, G. M.</td>
<td>170</td>
</tr>
<tr>
<td>MCDONALD, R. K</td>
<td>409</td>
</tr>
<tr>
<td>MCEEVER, W. J</td>
<td>21, 300</td>
</tr>
<tr>
<td>MCEIVER, J. C</td>
<td>410</td>
</tr>
<tr>
<td>MCGURK, J. D.</td>
<td>9, 468</td>
</tr>
<tr>
<td>MCKEE, F. A.</td>
<td>575, 589</td>
</tr>
<tr>
<td>MCKNIGHT, J. B</td>
<td>507</td>
</tr>
<tr>
<td>MCFARLANE, J. B.</td>
<td>382</td>
</tr>
<tr>
<td>MD</td>
<td>22, 450</td>
</tr>
<tr>
<td>MEAD, W. A.</td>
<td>507</td>
</tr>
<tr>
<td>MEANS, P. A.</td>
<td>171-173</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>See also Wisconsin.</td>
<td></td>
</tr>
<tr>
<td>Menus</td>
<td>3, 18, 28, 44, 64, 91</td>
</tr>
<tr>
<td>MERRIAM, LEWIS</td>
<td>575, 592</td>
</tr>
<tr>
<td>MERRIAM, R. C.</td>
<td>710</td>
</tr>
<tr>
<td>MERRILL, R.</td>
<td>75-78</td>
</tr>
<tr>
<td>MERRITT, E. B</td>
<td>593</td>
</tr>
<tr>
<td>Mesa Verde Park</td>
<td>37, 262, 309</td>
</tr>
<tr>
<td>Mesquite</td>
<td>See Peyote.</td>
</tr>
<tr>
<td>Mesquite</td>
<td>802</td>
</tr>
<tr>
<td>Mexcalero Apaches</td>
<td>265, 540, 810</td>
</tr>
<tr>
<td>See also Apaches: New Mexico.</td>
<td></td>
</tr>
<tr>
<td>Mexican Indians</td>
<td>322, 432, 495, 579, 632-633, 737</td>
</tr>
<tr>
<td>See also Wisconsin.</td>
<td></td>
</tr>
<tr>
<td>Menus, all-American</td>
<td>3, 18, 28, 44, 64, 91</td>
</tr>
<tr>
<td>MESSENGER, LUIGI</td>
<td>384</td>
</tr>
<tr>
<td>Metallurgy</td>
<td>276, 303, 388</td>
</tr>
<tr>
<td>Metate</td>
<td>802</td>
</tr>
<tr>
<td>METCALF, B. T.</td>
<td>802</td>
</tr>
<tr>
<td>MEXICO</td>
<td>6, 17, 20-22, 41, 49, 120, 211, 276, 300, 388, 657, 664, 697, 756, 765, 775, 780, 817. See also Aztec.</td>
</tr>
<tr>
<td>MESQUITE</td>
<td>265, 303, 388</td>
</tr>
<tr>
<td>MIAMI INDIANS</td>
<td>329</td>
</tr>
<tr>
<td>MICHIGAN</td>
<td>265, 303, 388</td>
</tr>
<tr>
<td>MICHIGAN INDIANS</td>
<td>217-219, 389, 456, 677</td>
</tr>
<tr>
<td>MICHIGAN INDIANS</td>
<td>839</td>
</tr>
<tr>
<td>IMMIGRANTS, INDIAN</td>
<td>4-6, 11, 17, 20, 23-25, 670, 707</td>
</tr>
<tr>
<td>MILDEGRAF</td>
<td>222</td>
</tr>
<tr>
<td>MILLER, M.</td>
<td>222</td>
</tr>
<tr>
<td>MILLIGAN, C. F</td>
<td>535, 808</td>
</tr>
<tr>
<td>MILPA agriculture</td>
<td>51, 147-148</td>
</tr>
<tr>
<td>Minnesota</td>
<td>422-224, 482, 484-489, 492-494, 564, 592, 601, 605, 710, 815-816. See also Chippewa.</td>
</tr>
<tr>
<td>MISKITO INDIANS</td>
<td>134</td>
</tr>
<tr>
<td>MISSION INDIANS</td>
<td>617</td>
</tr>
<tr>
<td>MISSION SAINTS</td>
<td>17, 224</td>
</tr>
<tr>
<td>MISSISSIPPI</td>
<td>21</td>
</tr>
<tr>
<td>See also Chickasaws: Choctaws; Natchez</td>
<td></td>
</tr>
<tr>
<td>MISSISSIPPI VALLEY</td>
<td>21</td>
</tr>
<tr>
<td>MONTANA</td>
<td>42, 46, 245, 250, 276, 681</td>
</tr>
<tr>
<td>MONTANA</td>
<td>42, 225, 234, 276, 681</td>
</tr>
<tr>
<td>MONTANO</td>
<td>232</td>
</tr>
<tr>
<td>See also Iroquois.</td>
<td></td>
</tr>
<tr>
<td>Money</td>
<td>7-100</td>
</tr>
<tr>
<td>Money</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Montagnais Indians</td>
<td>835</td>
</tr>
<tr>
<td>Montagna</td>
<td>332</td>
</tr>
<tr>
<td>See 399-401, 425, 465, 503, 501, 623, 754</td>
<td></td>
</tr>
<tr>
<td>See also Blackfoot Indians; Crow Indians; Flathead Indians; Missouri Valley.</td>
<td></td>
</tr>
<tr>
<td>MOON, H. P.</td>
<td>443</td>
</tr>
<tr>
<td>MOONEN, JAMES</td>
<td>808</td>
</tr>
<tr>
<td>MORALS, CABRA, PABLO</td>
<td>90</td>
</tr>
<tr>
<td>MORRIS, A. G.</td>
<td>460</td>
</tr>
<tr>
<td>MORLEY, S.</td>
<td>266-267</td>
</tr>
<tr>
<td>MORSE, F.</td>
<td>712</td>
</tr>
<tr>
<td>MORSEY, E. L</td>
<td>713</td>
</tr>
<tr>
<td>MOURMSON, R. H.</td>
<td>594</td>
</tr>
<tr>
<td>MOUND BUILDERS</td>
<td>3, 18, 24, 46, 108, 460, 503, 501, 572, 582, 584, 595-597, 625, 629, 668. See also Milupa.</td>
</tr>
<tr>
<td>MURDOCK, G. P</td>
<td>174</td>
</tr>
<tr>
<td>MURPHY, H.</td>
<td>806</td>
</tr>
<tr>
<td>MUSEUMS, ETHNOBOTANICAL</td>
<td>59, 672, 676</td>
</tr>
<tr>
<td>MUSEUM OF THE AMERICAN INDIAN</td>
<td>59, 673, 678</td>
</tr>
<tr>
<td>MUSGRAVE, M. E.</td>
<td>566-579</td>
</tr>
<tr>
<td>Mushrooms, sacred</td>
<td>820, 823</td>
</tr>
<tr>
<td>Musk oxen</td>
<td>23</td>
</tr>
<tr>
<td>Mythology</td>
<td>4</td>
</tr>
<tr>
<td>Mythology</td>
<td>6, 22, 241, 306, 478, 480, 708, 742, 777</td>
</tr>
<tr>
<td>See also Ceremonials; Religion.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. N.</td>
<td>386</td>
</tr>
<tr>
<td>N. N.</td>
<td>386</td>
</tr>
<tr>
<td>Narcotics</td>
<td>18, 48, 90, 134, 265, 440</td>
</tr>
<tr>
<td>Narcotics</td>
<td>820-823</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>North Dakota</td>
<td>765, 820</td>
</tr>
<tr>
<td>Narcotic plants</td>
<td>822-823</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>See also Medicinal plants.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasturtiums</td>
<td>107, 148</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Natchez Indians</td>
<td>260, 853</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>See also Mississippi.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Nebraska</td>
<td>227, 231, 468-480</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Lakes Reservation</td>
<td>402, 564</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>New England</td>
<td>240-243</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>See also 223-226, 417, 47, 58, 253, 364, 379. See also Apaches; Navajos; Pueblos.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>NEW JERSEY</td>
<td>21, 470</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>NEWBERNE, R. E. L</td>
<td>808</td>
</tr>
</tbody>
</table>
INDEX

NEWBERRY, J. S. .............................................. 734
NEWHALL, BEATRICE .................................................. 73
New York .......................................................... 21
See also Iroquois.
Nez Percé Indians ........................................... 585, 740
Nicaragua .......................................................... 194
Nicol, Hugh ..................................................... 80
Nitrate of soda ................................................... 166
North Carolina ...................................................... 21
North Dakota ..................................................... 229, 237, 336, 400, 531, 676
See also Arikaras; Hidatsas; Mandans; Missouri Valley.
Novitz, K. ....................................................... 175
Nuphar odoratum .................................................. 634
Nuts .............................................................. 96, 112, 190
Nuttal, ZEALIA .................................................... 123-124, 388

O

Ohio .............................................................. 21
See also Mound builders.
Oil ................................................................. 134, 244
Ojibwa Indians .................................................... 224, 327, 612, 719
See also Chippewas; Minnesota.
Oklahoma .......................................................... 537, 541-542
Oldrechts, F. M .................................................... 805
OLIN, W. H. ....................................................... 82
Ololiuhco .......................................................... 823, 837
OLSON, R. L. ..................................................... 175
Omba Indians ..................................................... 359, 549, 579, 620
Onion ............................................................. 107
See also Vegetable foods.
Ontario. See Canada.
Opler, M. E. ...................................................... 716
Oregon ........................................................... 21, 641, 861-862, 901
Oregon tea ....................................................... 748
Ottawa Indians .................................................... 85
Ovens. See Cooking.
OVIEDO Y VALDÉS, G. F. 45 ........................................ 451
OWENS, J. G. ..................................................... 667
Oxalis tuberosum .................................................. 148
Ozark bluff-dweller culture .................................... 276, 681

P

Pachypodium cocos .............................................. 761
PACKER, B. G. .................................................... 716
Papago Indians ................................................... 22
Pagents ......................................................... 32, 336
Paints ............................................................ 63, 226, 244, 729, 742, 765
Paints ............................................................ 971
See also Utah.
Pala Reservation .................................................. 617
See also Mission Indians.
Palmwood .......................................................... 120
PALMER, EDWARD .................................................. 715
Papa islas ........................................................ 148
Papawes .......................................................... 296

See also Arizona.


Peucedanum curvatum ........................................... 752
Peucedanum candyi ............................................. 752
Peysote ........................................................... 18

764, 765, 773, 775, 776, 781, 787, 808-811, 813-814, 819-820, 824-827, 836

PHAYNE, IGNATIUS ................................................. 599
PHILIPOWER, C. A. ............................................... 77, 889
Phytogeography .................................................. 77, 889
Plains ............................................................ 305, 301
408, 460, 516, 536-570, 573, 620, 685
See also Arizona.

Pine Ridge Reservation .......................................... 515, 678
See also South Dakota.
Pineapples ........................................................ 701

PITTIER DE FERRÉ, H. F. ......................................... 718
Plains Cree .................................................... 232
See also Cree.

Plains Indians .................................................. 5-6, 17
21, 23, 84, 116, 233-236, 417, 423-424
See also Missouri Valley; also under particular tribes.
Pine-leaf Indians—cultivated ................................... 41, 715-716
foods. See Foods.

Tea. See Medicines.

Teas.—See Medicines.

See also Curling.

See also under specific plants.

Plays. See Pageants.
Pogus ............................................................ 706
POINDEXTER, MILES .............................................. 177
Potawatomi ..................................................... 17, 20-21
Powenoe, Wilson ............................................... 208, 373, 717
Population of ancient America .................................. 4-7.
17, 20-21, 25-25, 104, 118, 513, 571, 600, 627
Potatoes .......................................................... 18
20, 74, 90, 101-103, 105, 109, 112
138, 457-484, 151-152, 178, 488-490, 517, 630, 701
Potawatomi Indians ........................................... 226
See also Wisconsin.

Pottery ........................................................... 3-7
17-20, 25-24, 39-48, 61, 81, 90
105, 296, 349, 363, 373, 382, 396, 447, 744

POUSSE .......................................................... 740
POWELL, E. P. ................................................... 87
Powers, J. W. ..................................................... 28, 88
POWER, STEPHEN ................................................. 718
PRESCOTT, THOMAS .............................................. 233
Preston, P. ....................................................... 600
Promised Indian Farmers' Club .................................. 565
PROVINCE, J. H. .................................................. 302
Pueblo Bonito .................................................... 281, 292
Pueblo de Colorado de Nevada .................................. 281
Pueblo Indians ................................................... 3, 5
See also New Mexico.
Pueblo Revolt (1824) ............................................ 529
Puerto Rico ..................................................... 135-136
Pumpkins ........................................................ 74
90, 102-103, 105, 107, 112, 190, 227
Purslane ........................................................ 107
INDEX

Q Item
Quamasia quamash 740, 754
Quebec See Canada
Quenan 90
Quera 766
Quichua Indians 150, 443
Quileute Indians 720
Quinine 3, 18, 49, 65, 90, 105, 112, 765, 791, 794, 840
Quinoa 148
R
Raiz diabólica. See Devil's root.
Rakes. See Implements.
Raleigh, Walter 440, 442, 446, 449
Ramírez, R. G. 814
Ray, C. N. 303
Reagan, A. B 304
Reagan, A. B 311, 402, 404, 423, 722, 822
Red Lake Reservation 564
See also Minnesota.
Redfield, Robert 817
Reyes, H. 581
Rindler, P. 224
Religious beliefs 6, 17, 20, 23, 129, 136, 177, 187, 326, 696, 733, 834
See also under specific reservations.
Reynolds, Alston 137
Roads, C. J. 581
Rhode Island 240
Rice. See Wildrice.
Riegel, G. U. 23
Riemer, Charlotte 493
Riley, A. S. 391
Riley, R. M. 200
Rio Grande Valley 616, 647, 781
Ripperger, Henrietta 380
Rissler, J. 177, 184
Robbins, W. W. 723
Roberts, F. H., Jr. 125, 602
Roe, E. G. 471
Roosevelt, C. V. S. 178
Rosedale, Colorado 515
Roxburgh, South Dakota 516
Ross, E. D. 315, 402
Rouiller, Alexandre 819
Roth, R. L. 210
Roubier, Shepherdia argentea 735
Rugg, H. H. 723
Russell, Frank 305, 654
Russell, G. Jr. 640
Ryan, W. C. 575, 592
Ryner, V. A. 445
Ryder, M. A. 726
S
Sacagawea 691
Saccharines 20
See also Sugar.
Saddles 430, 432
Safford, W. E. 90, 94
126-127, 446, 727-733, 787, 820-824
Sagittaria latifolia 700
St. Tammany Parish, Louisiana 650
Salaman, E. N. 447
Salleh, Interior tribe 427, 754
Salt 39, 42, 122, 285, 288, 514, 537
Salt River Valley 37, 253, 277, 333
See also Arizona.
Sanford, A. H. 95
Sanitation 95
Santa Rosa Valley 558
Sapp, Karl 96-97
Saskatchewan, See Canada
Sauers, Carl 98
Saunders, C. F. 734
Schermak, L. F. 603
Schmidt, L. H. 315, 402
Schwee, C. G. 325
Schools. See Education.
Scherzer, R. 535
Schleier, F. W. 604
Sears, P. B. 735
Seasonings 746
See also Cooking.
Seasonal astronomical determination 6, 20, 23,24, 148-149, 197, 199, 206, 214, 261, 382.
Seler, Eduard 680, 704
Seminole 574
Senecas 365, 475-476, 687-688
See also Iroquois.
Senge, E. 605-606
Schtchel, W. A. 471
Seetzer, F. M. 306
Sekiguchi, F. Y. 607-609
Shaler, S. 88
Shawnee Indians 21
Shel, Arizona 736
Sheep 151, 173, 268, 548, 552, 571, 582, 668
See also Navajos; Southwest, United States; Wool.
Shepard, W. F. 530
Shedgood, Anna 736
Shepherdia argentea 752
Sheyenne Indians 129
Shickele, C. E. 63
Shields, H. E. 430
Shinmin, S. C. 474
Siox, 21, 233, 515, 544
See also Missouri Valley.
Sipe, S. B. 609
Sisal 5, 207
Skinner, Alanson 476-478
Skinner, C. L. 625
Skinner, H. C. 723
Shibley, Russell 827
Shoshone Indians 430
Shirley, George 674
Sioux, Gert 777
Sioux Indians 828
Sikani Indians 825
Simpson, S. C. 474
Smith, C. J. 21
Smith, F. H. 532-537, 737-738
Smith, H. M. 86
Smith, J. E. 510
Smithsonian Institution—annual reports 198, 199, 214, 446, 468, 636, 681, 823
miscellaneous collections series 316, 408, 777
Science—serials 370
See also U. S. Bureau of American Ethnology.
Smoking 432, 460, 465-470, 474, 479, 655, 742
See also Tobacco.
Smokeroof 222
Sniffen, M. K. 611
Snow—cebil 822
coba 90, 822, 823
cueb 822
huilcan 822
narcotic 822
tobacco 822
Social organization 4-6, 12
17, 23, 25, 148, 174, 204, 207, 249, 257, 514
Socialism, Incan 5, 18-19
Socialism, Mexican 432, 144, 157-159, 174, 181-182, 185
Soil Conservation Service 697
Solar 640
South America 2, 17, 40, 55, 134, 165
See also under specific countries.
South Carolina 21, 747
South Dakota 515, 565, 678
<table>
<thead>
<tr>
<th>Item</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vicuña</td>
<td>5</td>
</tr>
<tr>
<td>Vigita</td>
<td>588</td>
</tr>
<tr>
<td>VILLETS, M. DE.</td>
<td>838</td>
</tr>
<tr>
<td>Virginia</td>
<td>315-318</td>
</tr>
<tr>
<td>See also 6, 8, 17, 21, 47, 58, 245.</td>
<td></td>
</tr>
<tr>
<td>WALLACE, D. A.</td>
<td>314</td>
</tr>
<tr>
<td>WALLIS, W. D.</td>
<td>829</td>
</tr>
<tr>
<td>WAPITI</td>
<td>790</td>
</tr>
<tr>
<td>Warehouses. See Granaries.</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>462, 720</td>
</tr>
<tr>
<td>Washita Indians.</td>
<td>541</td>
</tr>
<tr>
<td>Washbetown County, Michigan</td>
<td>219</td>
</tr>
<tr>
<td>Water supply</td>
<td>281</td>
</tr>
<tr>
<td>Waterlily</td>
<td>654, 660</td>
</tr>
<tr>
<td>Waterman, T. T.</td>
<td>108, 438, 640</td>
</tr>
<tr>
<td>Watermelons</td>
<td>61, 227, 268, 541</td>
</tr>
<tr>
<td>Watson, Don</td>
<td>37</td>
</tr>
<tr>
<td>WATT, GEORGE</td>
<td>413</td>
</tr>
<tr>
<td>Watch, F. W.</td>
<td>194, 766</td>
</tr>
<tr>
<td>Weather lore</td>
<td>514</td>
</tr>
<tr>
<td>Weatherwax, Paul.</td>
<td>37, 397-398</td>
</tr>
<tr>
<td>Weather lore</td>
<td>654, 660</td>
</tr>
<tr>
<td>Weeden, W. R.</td>
<td>113</td>
</tr>
<tr>
<td>Wenz, Alfred</td>
<td>399, 623</td>
</tr>
<tr>
<td>West, G. A.</td>
<td>478-479</td>
</tr>
<tr>
<td>West Indies</td>
<td>2-6-7, 11, 15, 17, 20-21, 47, 442</td>
</tr>
<tr>
<td>Weyl, C. G.</td>
<td>223</td>
</tr>
<tr>
<td>Wheeler, L. R.</td>
<td>624</td>
</tr>
<tr>
<td>White Earth Res.</td>
<td>485, 564</td>
</tr>
<tr>
<td>See also Minnesota.</td>
<td></td>
</tr>
<tr>
<td>White, John</td>
<td>490</td>
</tr>
<tr>
<td>White Mountain Apaches</td>
<td>721</td>
</tr>
<tr>
<td>See also Apaches.</td>
<td></td>
</tr>
<tr>
<td>Witzmitnow, A.</td>
<td>179</td>
</tr>
<tr>
<td>Wichita Indians.</td>
<td>529</td>
</tr>
<tr>
<td>Wickes, D. R.</td>
<td>186</td>
</tr>
<tr>
<td>Wiener, Leo.</td>
<td>22, 480</td>
</tr>
<tr>
<td>Wildrice</td>
<td>481-495</td>
</tr>
<tr>
<td>See also 3, 5, 9, 12, 68, 91, 103, 224, 322, 545, 601, 659, 672.</td>
<td></td>
</tr>
<tr>
<td>Wild turkeys</td>
<td>112, 250, 496-498</td>
</tr>
<tr>
<td>Wilden, W. H.</td>
<td>305</td>
</tr>
<tr>
<td>Wild, G. F.</td>
<td>233, 400-401, 757</td>
</tr>
<tr>
<td>Willoughby, C. C.</td>
<td>242-243, 318</td>
</tr>
<tr>
<td>Wilson, C. M.</td>
<td>624</td>
</tr>
<tr>
<td>Wilson, E. N.</td>
<td>439</td>
</tr>
<tr>
<td>Wilson, G. L.</td>
<td>237, 428-429</td>
</tr>
<tr>
<td>Wilson, M. L.</td>
<td>332</td>
</tr>
<tr>
<td>Wilson, Owen</td>
<td>626</td>
</tr>
</tbody>
</table>

See also Wisconsin.

See also 84, 223, 392, 432, 437, 479, 482, 495, 579, 630-635, 737.

Wissler, Clark          | 23-26                 |
| Whitlack, 111-117, 228, 401-402, 430-433, 627 |
| Wittaek, W. V.        | 628-629               |
| Woff, J. F.           | 437, 630-633          |
| Worsam                 | 662                   |
| Wolf Chief            | 429                   |
| Wolf, F. A.           | 761                   |
| Wood. See Forests, uses. |
| Wood, G. B.           | 840                   |
| Wood, William         | 26                    |
| Wood, Wilson          | 830                   |
| Woodruff, K. B.       | 239                   |
| Woods, C. A.          | 38                    |
| Wool, 143, 148, 548   |
| See also Llamas; Sheep; Weaving. |
| Work, Hubert          | 575                   |
| Wright, A. H.         | 496                   |
| Wright, Richardson    | 131                   |
| Wrigley, G. M.        | 187                   |

Xochimanico.           | 118                   |
| Xochinacastil (sacred can flower) | 730-732 |
| Xochipequil (flower paint) | 729 |

Yajé.                  | 818                   |
| Yampa. See Ipo.        |                      |
| Yanovsky, E. I.        | 762-763               |
| Yerba buena            | 748                   |
| Yerba mate.            | 3, 18, 90, 112, 646, 651, 653 |
| See also Tea.          |                      |
| Yosemite Indians       | 301, 702              |
| Younken, H. W.        | 841                   |
| Yucatán                | 207, 216, 644         |
| See also Mayas.        |                      |
| Yucca                  | 186, 270, 290, 754    |
| Yuma Indians.          | 555, 557              |

Z

Zaitzey, G. S.          | 414                   |
| Zimmer, J.            | 409                   |
| Zizania aquatica. See Wildrice. |
| Zuñi Indians.          | 268                   |
| See also New Mexico.   |                      |