

Nutt. The blue dye which the Hopi im-
pared from the seeds of the sunflower.
t. The seeds of this plant are ground up
an oily liquid, which serves as a medium
pottery decoration.
This plant has many uses in the arts
tying material, etc.
T. & G. The ashes of this plant are used
& Frem. The gum was used as cement in
ics as it is in the modern. A few speci-
ampio are glazed with piñon gum.
a (Hook) Hack. The long canes are neatly
wedding-blanket covers.
into smoothers for pottery.
The twigs are used for coarse basketry.
The root is used for soap and the leaves for

e Bosc.
h. The grass used by women in making
us tinctorius Linn. Saffron, used to dye

CULTURE AND FORAGE

va (Nutt.) Torr. Forage grass for animals.
t. Food for sheep.
les Watson. Also eaten by sheep.
um Watson. Also eaten by sheep.
rus strictus Scribn. Fine forage grass.
rsh.) James. Eaten by horses.
r.) Benth. Good grass for horses.
Horses like it very much. The twigs are
t. Bad forage for animals on account of the
osa Torr. This grass is covered with fine
ses to cough and choke when they attempt
ii Pursh. This is the "loco weed," so in-
The evil burs get into wool and in many
man and beast.
of plants is employed in the cultivated fields
sheds. Brush is also placed in gullies to
rush dams are made to form level places by
liment. Crops are planted on the deltas so

MEDICINE

- Chacháume*, *Townsendia Arizona* Gray. Women boil the plant to make tea to induce pregnancy.
Chiuñá, *Astragalus mollissimus* Torr. Said to be a good medicine for headache; the leaves are bruised and rubbed on the temples.
Monáhaña, *Artemisia Canadensis* Michx. Rubbed up and placed on the temples for headache.
Máitka, *Senecio douglasii* DC. Rubbed on the limbs for rheumatism and soreness of the muscles.
Mamáuti, *Aster* sp. Tea is made from the flower and given to young girls to make them fruitful.
Püñá, *Polygonum ramosissimum* Michx. Ground on a stone and used as a plaster; the effect is heating. Women drink a tea infused from the leaves to increase milk.
Podhi, *Erigonum corymbosum* (?). Infusion made and drunk by women to expedite child-birth.
Tahóvapi, *Gaura parviflora* Dougl. Tea made from the root for snake bite.
Tüwázhriapi, *Ranunculus cymbalaria* Pursh. Known by the Hopi as "Navaho medicine."
Wütákpala (no specimen). Rubbed on the breast or legs for pain.
Ishákana, *Verbesina enseloides* B. & H. Used on boils or for skin diseases.
Kavíkana, *Croton Texensis* Muell. Taken as an emetic to relieve the stomach.
Koicháña, *Allionia linearis* Pursh. Boiled to make an infusion for wounds.
Kókyáña, *Brickellia Wrightii* Gray. Called "Navajo tea."
Lakápa (Spanish), *Phoradendron juniperinum* Engelm. The Navaho and Hopi make a beverage, which they say is like coffee, from this mistletoe. A larger species on the cottonwood tree, called "lo mapi," is used as medicine.
Máitbi, *Bigelovia douglasii stenophylla* Gray. Infusion used for bathing bruises and wounds.
Ohá'ishi, *Thelesperma gracile* T. & G. Tea for headache is made from this plant.
Pámnavi, *Gutierrezia euthamiae* T. & G. Tea for fever is made from this plant, in combination with three other plants.
Püñá, *Polygonum ramosissimum* Michx. Ground on a stone and used as a heating plaster.
Podhi, *Erigonum corymbosum* (?). Infusion drunk for disorder of the stomach.
Tawóka, *Eurotia lanata* Moq. One of the ingredients of tea for fever.
Tüwázhriapi, *Linum rigidum* Pursh. Taken as tea for stomach disorder.
Tüpelováchu, *Chrysopsis villosus* Nutt. Pain in the chest cured by a tea made from the leaves and flowers.
Wéi, *Aplopappus* sp. The root is boiled to make a tea for cough.

Howarth, W. THE HOPI IN RELATION TO THEIR PLANT ENVIRONMENT. AM ANTHRO 1897; 10: 33-44
[EXCERPTS ONLY] #7030

Páláni (no specimen). The plant grows at Awatobi, where the roots are gathered to make tea for colds.
Kütsibsü, *Biscutella wislizeni* B. & H. The leaf is dried, rubbed to a powder, and sprinkled on wounds.
Sübi, *Rhus trilobata* Nutt. The buds are regarded as medicinal.
Napalii'ña, *Artemisia tridentata* Nutt. "An infusion of the leaves is drunk by a person whose ailment is supposed to be in the ilium."
Püñá, *Asclepias verticillata* L. An infusion is drunk to increase the flow of milk.

RELIGION

Shémstala, *Calamovilfa longifolia* (Hook.) Hack. Carried in the Humis Kachina.
Chubshi, *Aster* sp. Mixed with sacred tobacco.
Maibi, *Bigelovia douglasii stenophylla* Gray. A component of the Shaqua paho.
Tüminala, *Martynia proboscidea* Glosc. Part of the soyalana paho; plant male.
Hovápi, *Artemisia tridentata* Nutt. Used in the flute paho.
Pámmavi, *Gutierrezia euthamiae* T. & G. Used in the snake paho.
Tewi, *Sarcobatus vermiculatus* Torr. One of the four sacred kiva fuels.
Pashelürp'bi, *Populus monilifera* Ait. The peeled shoots are used in preparing the pahos or prayer-sticks for all ceremonies. Tihus, parts of masks, fire-sticks, plume boxes, etc, are carved from the wood.
Hohoyána, *Physaria newberryi* Gray. "This plant is one of the ingredients of the snake charm or antidote drunk after the Snake dance by all who have taken part as snake priests" (Fewkes).
Sorósi, *Delphinium scaposum* Greene. Flowers are ground with corn to make blue meal, "blue pollen," for the flute altar.
Cübi, *Rhus trilobata* Nutt. Twigs used for ceremonial purposes; the branches are one of the four ceremonial kiva fuels.
Póna, *Equisetum lævigatum* Braun. Dried and ground with corn to make the sacred bread called ponoviki.
Hési, *Calochortus aureus* Watson. The flowers and seeds are ground with meal to make yellow pollen for the flute ceremony.
Kü'ña, *Artemisia frigida* Willd. Used in pahos.
Süóni, *Atriplex canescens* James. One of the four kiva fuels.
Siwápi, *Bigelovia Howardi* Gray. The dried plant is one of the four kiva fuels. "An infusion of the flowers is used to color a chalky stone employed as a personal decoration during ceremonies" (Fewkes).
Kivi, *Lycium pallidum* Miers. The entire shrub is used in the Niman Kachina.
Pi'ba, *Nicotiana attenuata* Torr. Smoked on all ceremonial occasions. Cotton is cultivated almost exclusively for ceremonial purposes, its chief consumption being for the string employed in assembling the elements of the pahos.

FOLK-LORE

Kobúkawa, *Erigonum Thomasii* Torr. The big rat, Kalna, eats this plant; hence its name.
Pámmavi, *Gutierrezia euthamiae* T. & G. This plant, which grows with the másbí, *Bigelovia douglasii stenophylla* Gray, is called the child of the másbí.
Pi'ña, *Polygonum ramosissimum* Michx. This plant exudes a milky substance when broken, and hence is used to increase a scanty flow of milk in nursing mothers.
Powü'üsi, *Abronia micrantha* (Torr.) Choisey, and *A. fragrans* Nutt. Placed on a child's head to induce sleep.
Sóyana, *Allionia nyctaginea* Michx. (*Oxybaphus nyctagineus* Sweet). This plant is named for the bat. When babies will not sleep in the daytime they are washed in a decoction of this plant, because the bat sleeps during the day.
Tüminala, *Martynia proboscidea* Glosc. The plant is male; gender of plants.
Hohoyána, *Physaria newberryi* Gray. Named from the *Asida rimata* or prayer beetle and nahu charm.
Ása, *Sisymbrium canescens* Nutt. One Hopi clan bears the name of this plant. (See legend given by Dr Fewkes in *The American Anthropologist* for January, 1896, p. 15.)
Léhü, *Oryzopsis cuspidata* Benth. Also the name of one of the clans.
Máryitka, *Senecio douglasii* DC. The name means "mole corn." "Many plants are thus assigned to animals supposed to hold them in special favor" (Fewkes).

The following summary, in which the duplications have not been eliminated, gives the number of plants falling into the general classes. As there are probably not over 150 indigenous species in the environment, this list shows the thorough way in which the Hopi have made use of their plant surroundings.

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| Arts..... | 16 |
| Architecture..... | 4 |
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Comparatively late in the study of the new science of ethnology has attention been called to the preëminent importance of the