



***Camassia quamash* (Pursh) Greene** Small camas

The cultivation, processing, and trade of the camas bulb is a prime example of how Indians used native plants to sustain themselves and for trade with others, including with the Lewis and Clark expedition.

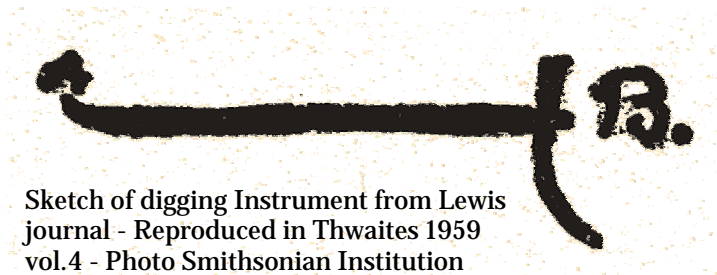
During their two and a half-year trip, the members of the Corps of Discovery relied on many food plants they obtained from the Indians; some they tasted for the first time. Among those plants, the small bulb of *Camassia quamash* was special. On September 18, 1805, the corps finished crossing the Bitterroot Mountains, exhausted and nearly starving when they came upon a group of Nez Perce Indians, who fed them with camas bread and roots, along with dried salmon, buffalo meat, and berries.



The band had the good fortune of finding the Nez Perce on the Weippe prairie, a major camas harvesting area for the Indians. Although it was almost the end of the season, both William Clark and Sgt. Whitehouse were impressed by the signs of intense activity associated with the collecting, processing, and preservation of the camas bulb. Whitehouse saw the prairie covered by bulbs of camas, and Clark noted the “*Emence quantity of the [quawmash] or Pas-shi-co root gathered & in piles about the plain*”

Cross Section of Growing Camas, Sohon Gustavius 1853-54
Smithsonian Institution National Anthropological Archives

(Clark journal, September 20, 1805). During spring and summer, the Nez Perce and other Indian groups gathered in the vast prairie to dig and prepare enough camas to store for the entire winter. The Indian lodges that attracted Clark's attention when he first arrived in the plain were specifically built to accommodate families during these weeks of hard work, which was carried out by women and girls.



Sketch of digging Instrument from Lewis journal - Reproduced in Thwaites 1959 vol.4 - Photo Smithsonian Institution

“The instrument used by the natives in digging their roots is a long stick of 3 ½ feet long sharpened at the lower end and it's upper inscrted into a part of an Elks or buck's horn which serves as an handle, standing transversaly with the stick or it is in this form A the lower point, B the upper part or handle”
(Lewis journal, January 24th, 1806)

After this first encounter, the men of the expedition had frequent opportunities to eat the camas, as it was a major staple for several Indian groups in the Northwest. As their journals recount, the expedition members relished the bulbs. On September 22, 1805, after a meal of camas, Sgt. Ordway talked about an *“excellent root bread”* and *“kills [kilns] engeaniously made where they [the Nez Perce] Sweet [sweat] these roots and make them sweet and good to the taste”* (Ordway journal, September 22, 1805). Sgt. Gass found the camas bread *“good and nourishing, and tastes like sometimes made of pumpkins,”* while Whitehouse compared the camas bulb to potatoes when cooked (Gass journal, September 22, 1805 in *Moulton 2002: vol. 10*; Whitehouse

journal, same date). For Lewis, it had “*much the consistency of a roasted onion,*” though he agreed about the “sweet agreeable flavor” and remarked that the Indians methods of processing the roots “*afford not only a nutritious but an agreeable food*” (Lewis journal, June 11, 1806).

On his way back from the Pacific coast, in June 1806, Lewis stopped again in the Weippe prairie for a few days. Seeing the camas in bloom for the first time, growing so abundant it “*resembles lakes of fine clear water*” (Lewis journal, June 12, 1806), he took care to write down a detailed botanical description of the plant.



Camassia quamah – Walcott Mary Vaux 1925 - Detail
Photo Smithsonian institution

Although Lewis missed understanding the system families had for “owning” camas fields, he nonetheless gave what probably remains the best ethnographic account of the techniques used in the early 19th century by the Nez Perce Indians to collect and cook the camas root. Lewis explained the use of the digging stick to harvest the bulbs and described in detail the construction of sophisticated earth ovens where the roots cooked slowly in batches of 10 to 30 bushels for about two days. To keep for the winter months, the cooked roots were peeled, pounded, then steamed and made into breads or cakes of various sizes. The last operation was to sun-dry the breads, which could then be cut into smaller pieces, to be eaten alone or used as ingredients in other dishes (Lewis journal, June 11, 1806).

Although the camas was not a cultivated plant per se, the Nez Perce used various agricultural methods to ensure a steady source of bulbs over time. They would turn the soil, replant the smaller bulbs, transplant the better ones to selected harvesting zones, avoid over-harvesting, and periodically burn the meadows on which the camas grew (Ames 2004: 16). Maintaining the supply of camas was not only a matter of subsistence for the Nez Perce, but a significant economic resource, as they harvested a large surplus of bulbs and bread for trade. Lewis and Clark participated in this trade as they regularly bought supplies of camas and various other roots along their way.

Today, modern agricultural fields have replaced most of the big camas prairies in Washington, Oregon and Idaho, but the camas root is still used in festivals to celebrate the cultural heritage of the Nez Perce.

Other native bulbs and roots in the party's diet



The camas is one of the many bulbs and roots Indians harvested and processed to sustain themselves. Lewis's party bought and consumed the wapattoo, *Sagittaria latifolia* Willd., the cous, *Lomatium cous* (S.Wats.) Coult. & Rose, the Jerusalem artichoke, *Helianthus tuberosus* L., and the bulb of the spring beauty, *Claytonia lanceolata* Pall. ex Pursh. Click on these links to access the plants' pages in the "Lewis and Clark as Naturalists" website.

Claytonia lanceolata in Pursh's Flora vol.1
Photo Smithsonian Institution

"Lewis and Clark as Naturalists" website

<http://www.mnh.si.edu/lewisandclark/index.html?loc=/lewisandclark/home.html>

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Note: Otherwise mentioned, the quotes from the journals are from Thwaites 1959.

Internet Resources

For a complete illustrated botanical description of the plant, see *Camassia quamash* by James Reveal, in “*Discovering Lewis & Clark*” website. <http://www.lewis-clark.org/content/content-channel.asp?ChannelID=272>

The text of the University of Nebraska edition of the Lewis and Clark journals edited by Gary Moulton is available at “*The Journals of the Lewis and Clark Expedition Online Edition*” - <http://lewisandclarkjournals.unl.edu/>

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