THE DROWNED FOREST OF THE COLUMBIA GORGE

The drowned forest in the great gorge of the Columbia River was first described by Lewis and Clark in 1805-6. Much has since meen written and a remnant still exists but will soon be overflowed by the hydro-electric developments of the government. It may, therefore, be of value to students to have the list of references compiled for personal use by the writer. It is astonishing that there were so very few mentions. Of 172 accounts of seventy expeditions by 1834 only Lewis and Clark referred to them. As might be expected there is much repetition in the various descriptions with discussions as to the cause, etc. Probably the most scientific treatment of this is by Consulting Engineer L. F. Harza, in Bulletin Five, Oregon State Engineers, Salem, Oregon, 1916, pp. 36-50. See also Ira Williams, Columbia River Gorge, published by the Oregon Bureau of Mines, 1923, pp. 86-93, and M. C. George, Columbia Highway, Portland, Oregon, pp. 36-41. The north wall of the gorge caved in and a slide partially obstructed the river, which backed up and overflowed the land where the dense forest had been growing alongside of the river above the slide.

Seven early travelers mention the great numbers, and vast multitude of huge trunks which were described by ten writers as standing in the water, ten, fifteen or twenty feet deep. They were far out on each side, and canoes had to wind in and out among them as when one walks through a forest. Five mention that the trunks were fifteen, twenty, and in 1843, sixty and seventy feet above the surface. The mark of high water was some fifteen feet above the surface. Seventeen recorded that they stood upright where they had grown. Eleven designated the kind of trees, of which nine called them "pines" which in early days was the term used for all western evergreens. One wrote "pine and cedar," while Lieut. H. L. Abbot, U. S. A., in 1854, reported to the government that they were Douglas spruce, which were the same trees as were then growing on the slopes of the adjacent mountains. Lewis and Clark found that they had ceased vegetating but were stained or "doated," and estimated that they had been killed since 1786. The writer from elaborate calculation from other sources thinks that probably the water washed its way around the slide on August 16 and 17, 1775. Indian accounts in the references would seem to indicate during the second half of the eighteenth century.

Floating ice has broken off most of the trunks except near the

shores, but many are now on the beach during low water, and while most are in the most advanced stage of decay, yet some are filled with resin and such portions could be used to kindle a fire in a stove. Many are four feet in diameter. Mr. Donald B. Lawrence, of Johns Hopkins University, is preparing his thesis for his Ph.D. on this subject, and has courteously permitted the publication of his long and scientific examination. He has counted 1,695 trunks from a mile and a half west of Mosier, Oregon, to Stevenson, Washington, 24 miles. He finds Douglas fir or spruce, the "Oregon pine" of commerce, and by digging in the sand found the bark still in place. There are also western cedar (Thuja plicata), and at the extreme eastern range some yellow pines, (Pinus ponderosa). He also found one white oak. Neither he nor any early travelers mentioned any deciduous tree such as willow or poplar, such as usually grow along the banks of rivers. Mr. Lawrence asked that the aid extended to him by the U. S. Forestry Service and the C. C. C. men be acknowledged.

Primary Source References to the Drowned Forest of the Columbia River

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- 1805. The same. Clark's journal for October 30, 1805, p. 173. There is no mention by Patrick Gass nor by Joseph Whitehouse.
- 1805. Secondary. History of the Expedition of Captains Lewis and Clark. Compiled by Nicholas Biddle and published by Paul Allen, 1814. Under October 30, 1805. James K. Hosmer edition, Chicago, 1902, Vol. 2, p. 52.
- 1806. Original Journals, as above. Vol. 4, p. 279, Journal of Meriwether Lewis, April 14, 1806.
- 1806. The same, Vol. 4, p. 281. Journal of William Clark, same date. There is no mention by Patrick Gass.
- 1806. Secondary. Biddle-Allen compilation, as above, under April 16, 1806, Hosmer edition, Vol. II., p. 256.
- 1806. Original Journals, as above, Vol. 6, p. 67, under "Rivers and Creeks."
- Note: These are the only mentions in a compilation of 172 accounts of 70 expeditions into or through the gorge of the Columbia to 1835.

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- 1835. The same, p. 139, October 15, 1835.
- 1836. The same, p. 310, June, 1836.
- About 1838. Rev. Daniel Lee. Lee and Frost, Ten Years in Oregon, N. Y., 1844, p. 199.
- 1841. Charles Wilkes, U. S. N., Narrative of the United States Exploring Expedition, Philadelphia, 1849, Vol. 4, p. 281. Reference to Joseph Drayton, June, 1841.
- 1841. The same, Vol. 4, p. 381. Return trip of Joseph Drayton.
- 1842. Secondary. A. J. Allen, Ten Years in Oregon, Dr. E. White and lady. Ithaca, N. Y., 1838, p. 162. Dead stumps confused with petrified.
- 1843. Rev. Gustavus Hines, Voyage Around the World, (numerous reprints with many titles). First edition, 1850, p. 155, May 2, 1843.
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- 1843. Peter H. Burnett. Recollection of an Old Pioneer, reprinted in Oregon Historical Quarterly, Vol. 5, March, 1904, pp. 88-89, November, 1843.
- 1843. Overton Johnson. Johnson and Winter, Route Across the Rocky Mountains, reprinted in Oregon Historical Quarterly, Vol. 7, March, 1909, pp. 99-100.
- 1846. Life, Letters and Travel of De Smet, N. Y., 1905, Vol. 2, p. 555. Letter of Father De Smet, dated July 18, 1846.
- 1847. Paul Kane, Wanderings of an Artist, London, 1859, p. 260, July, 1847. Mentions sketch of submerged forest.
- 1852. Reminiscences. S. A. Clarke, *Pioneer Days in Old Oregon*, Portland, Oregon, 1905, Vol. 1, p. 140. Observations in 1852, see also pp. 138-141. Secondary.
- 1854. Pacific Railroad Reports, 33 Congress, 2d Session, Ex. doc. 78. George Gibbs, Vol. I, p. 476, May, 1854. Compare volcanic eruption with Dr. George Suckley, Vol. 1, p. 298, and Wilkes, as above, Vol. 4, p. 439. Johnson and Maxwell, 1841.
- 1855. Pacific Railroad Surveys, as above, Vol. 6, p. 89. Lieut. H. L. Abbot, U. S. A., September 17, 1855.
- 1855. The same, Abbot, Vol. 6, part 2, Geology, p. 56.

- 1854. Reminiscences. James C. Strong, "Wak-kee-na and Her People," N. Y., 1893, p. 135. Maj. J. W. McMurray, U. S. A., unpublished manuscript, quoted by James Mooney, in 14th Annual Report of Bureau of American Ethnology, "Ghost Dance Religion," part 2, pp. 716 (mention of Maj. McMurray), p. 722.
- 1887. Maj. C. E. Dutton, U. S. A., in *Science*, N. Y., Feb. 18, 1887, p. 156, reference to by James Mooney, as above, p. 722.
- 1890. Reminiscence. Homer D. Balch, *Bridge of the Gods*, preface page ix.
- 1916. L. F. Harza, in *Bulletin Five*, Oregon State Engineers, Salem, Oregon, 1916, p. 41.
- 1923. Ira A. Williams, *Columbia River Gorge*, Oregon Bureau of Mines, 1923, pp. 92-93.
- Unpublished tradition. Mrs. Lulu D. Crandall, The Dalles, Oregon, learned from an aged and reliable Indian that the obstruction at the Cascades so angered the Columbia River that it chased the Indians at the dalles up on the hills, then swept away their villages and stopped the salmon by submerging Celilo Falls.
- Unpublished tradition. Frederick U. Robin, Beacon Rock, North Bonneville, Washington. From traditions obtained from the son of the last tribal historian of the Cascades tribe, the date of the obstruction of the Cascades seemed to be approximately 1754 to 1764.

Estimate of date by J.N.B. is 1775.

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