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Article Summary: In 1968, two Omaha salvors, Jesse Pursell and Sam Corbino, encountered substantial evidence of a buried steamboat on the DeSoto National Wildlife Refuge. It was later discovered that this was the *Bertrand* which was known to have sunk in DeSoto Bend on April 1, 1865. This is a very preliminary report of the discovery and its contents.

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Photographs / Images: Hulk of sunken steamboat *Bertrand*; View southeast toward the stern of the wreck, showing the depth of the *Bertrand*; View of the wreck toward the south; View of the wreck showing mid section looking north; the boat's stern rudders; Workmen removing and recording cargo showing author Jerry Petsche in the center foreground; Ed Dobb, Laboratory Supervisor, National Park Service, separating jackets; Foodstuffs from the *Bertrand*; a cargo box from the wreck addressed to Stuart and Company, Deer Lodge, Montana; Lamps and chimneys from the wreck



*All cargo has been removed from the Bertrand in this aerial view which looks toward the west. (Photo, National Park Service; DeSoto National Wildlife Refuge)*

# Uncovering the Steamboat

## BERTRAND

By JEROME E. PETSCHÉ

(Author's note: Inasmuch as historical research on the *Bertrand* has scarcely begun, the following article is necessarily based on sketchy and fragmentary documentation. A comprehensive report on the riverboat's history and excavation is in preparation.)

In late February of 1968, two Omaha salvors, Jesse Pursell and Sam Corbino, encountered substantial evidence of a buried steamboat on the DeSoto National Wildlife Refuge. The vessel, below the water table at a mean depth of 28 feet from the surface, was located by augering, following the interpretation of old maps, information in newspaper accounts, abstracts of early land ownership, and the use of a fluxgate magnetometer. The craft was subsequently identified as the *Bertrand*, principally on the basis of cursive lettering in stenciling ink on the side of a number of boxes which read "Stores Bertrand." The *Bertrand*, a Missouri river steamer of the "mountain boat" class, was known to have sunk in DeSoto Bend on April 1, 1865. Enroute from St. Louis to Fort Benton, Montana Territory, she carried a cargo of foodstuffs, agricultural and mining supplies, and, according to historic sources, a large amount of mercury for the mines. The successful location and complete excavation of

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the cargo in 1968-69 thus ended periodic searches by others stretching back nearly a century.

The discovery also modified local tradition, which held that the *Bertrand* contained fabulous wealth, not only in the form of mercury (some sources report 35,000 pounds) but in the form of 5,000 or more gallons of whiskey in oaken casks, and even gold. The treasure trove actually recovered by the salvors was limited to nine wrought iron containers of mercury. A good deal of evidence encountered in the excavation during the summer of 1969 is indicative of previous salvage attempts, and the small amount of mercury was recovered in such a context that it led experienced observers to conclude that the nine containers were simply overlooked by earlier salvors. However, the historical significance of the vast amount of cargo may be best understood by considering it as material culture in a "time capsule," precisely dated, and quite representative of the mining technology and frontier economy of mid-nineteenth century North America.

Such potential for the interpretation of American history was immediately recognized by the Secretary of the Interior's Advisory Board on National Parks, Historic Sites, Buildings and Monuments. A memorandum issued by the Board states, in part, that "it regards the *Bertrand* and its contents as a type specimen, exceptionally valuable for study and illustrative purposes and, therefore, of national historical significance within the meaning of the Historical Sites Act of 1935." As comparative collections, that portion of the cargo which can normally be expected to survive longest in other historic sites (bottles, buttons, glass, hardware, etc.) should be of considerable value to the historical archeologist focusing attention on the upper Missouri.

Obviously, no attempt will or could be made in this article to describe in detail the *Bertrand's* contents. The description and stabilization of the material will necessarily continue for years, providing rare opportunities for research in frontier technology as well as the preservation of material exposed to a fresh water environment for over a century. Early estimates made by National Park Service archeologists during the summer excavation period of 1969 place the total volume of the cargo at just short of 15,000 cubic feet, much of which is presently wrapped in polyethylene and stored in a cool, moist atmosphere at the DeSoto National Wildlife Refuge. While individual artifacts may number somewhat short of two million, an estimated 300,000 items would appear to warrant stabilization and/or restoration for purposes of future study and museum exhibition. In

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addition to the foodstuffs, liquor, and patent medicine, these include objects of leather, wood, glass, ceramics (stoneware, china, porcelain), iron (wrought, drawn, cast), hard rubber, shell, textiles (wool, silk, cotton), ivory, brass, copper, tin, lead, etc.

Prior to discovery, the salvors in early 1968 sought and signed a contract with the General Services Administration—a prerequisite to a search and recovery of treasure-trove on federal land. According to conditions of the contract, the salvors, if successful, were to receive 60 percent of the value of the treasure trove—specified as mercury, whiskey, and gold—the federal government to retain 40 percent. The contract further provided, in Article 2, that the salvors be “guided during any excavation by the advice of the Chief, Midwest Archeological Center, National Park Service.” Furthermore, the contract was made subject to provisions of the Act for the Preservation of American Antiquities, approved June 8, 1906 (24 Stat. 225), and the implementing rules and regulations. Article 12 further states that “any artifacts (to include all man-made objects or parts thereof) or other valuable historical items that may be recovered must remain the property of United States Government and shall be given into the custody of the Refuge Manager.”

From the outset of the search in 1967, administration of National Park Service responsibilities to assure compliance with the Antiquities Act fell to Dr. Wilfred D. Logan, Chief, Midwest Archeological Center. He and his assistant, Jackson W. Moore, Jr., were present at the *Bertrand* at times when excavation was considered critical for the preservation of the sunken riverboat, and during the fall and early winter of 1968 when the first cargo was removed from the stern holds. The author was assigned to the site in June 1969, was present throughout the excavation period of 1969, and remained until the cargo was completely recovered, the well-point system removed, and the water table again allowed to rise, leaving the hulk under 12 feet of water, silt and sand. Field notes, charts, maps, scale drawings, and photographs were made from the time of initial exposure to the backfilling operation. Authorities on preservation and stabilization, architects, and engineers were consulted from time to time to render advice, and a temporary field laboratory was set up at the headquarters of the Refuge.

Although historical research on the riverboat has scarcely begun, enough basic information is known to present a brief review. The *Bertrand* appears to have been built in Wheeling, West Virginia, by Sweeneys and Company, an iron foundry, and is reported to have had a contemporary

value of \$65,000. She was a twin-stack, double piston, sternwheeler of shallow draft (perhaps drawing no more than three feet when loaded), measuring 161 feet in length, and with a beam of 32 feet (exclusive of catwalk or guards). She is reported to have measured 251 tons total burden, by no means the largest craft plying the Missouri at the time, but quite large compared to other "mountain" boats headed for Fort Benton in the mid 1860's. Although sources vary in regard to ownership, posters and those newspaper accounts containing the most internally consistent information identify the *Bertrand* at the time of debarkation for Montana Territory as part of the Montana and Idaho Transportation Line, headquartered in St. Louis. This firm, offering bills of lading for overland transportation in Montana Territory, was owned (in part at least) by John J. Roe and his son-in-law, John G. Copelin. Roe, a prominent St. Louis businessman, was himself a steamboat captain on the Ohio in earlier years. Later he owned a commission house, one of the larger pork-packing plants in the United States, and was associated with banking and insurance firms. During excavation it was noted that the name "J. J. Roe" appeared as a consignee on boxes of merchandise originating from the east coast.

The *Bertrand* seems clearly to have been in the charge of Captain James A. Yore when she went down in DeSoto Bend (alternately known in history as Portage La Force, Bertram Bend, and Bertrand Bend), although one advertisement cites an "Oakman" as the ship's master. While unclear, it is altogether possible that the latter was the pilot inasmuch as the roles of the captain and pilot were quite distinct on Missouri steamers of that period, and inasmuch as Yore appears in the same advertisement as the officer to whom one applied for passage. An Oakman is identified as a captain and pilot on one list of Missouri river steamboat officers during that period. Sometime after the *Bertrand* sinking, Yore was in the employ of the St. Louis and Omaha Packet line. Although accounts of the number of passengers on the *Bertrand* vary, at least ten are known by name. Along with Captain Yore, several persons checked into the Herndon House in Omaha on April 2, the day after the sinking.<sup>1</sup>

Information on the actual sinking is scanty. While yet a few thousand feet below DeSoto Landing (approximately 25 miles upstream from Omaha) she is reported to have struck a submerged snag. The following short item from the *Council Bluffs Non Pareil* of Saturday, April 1, 1865, is the most detailed account yet located in contemporary newspapers:

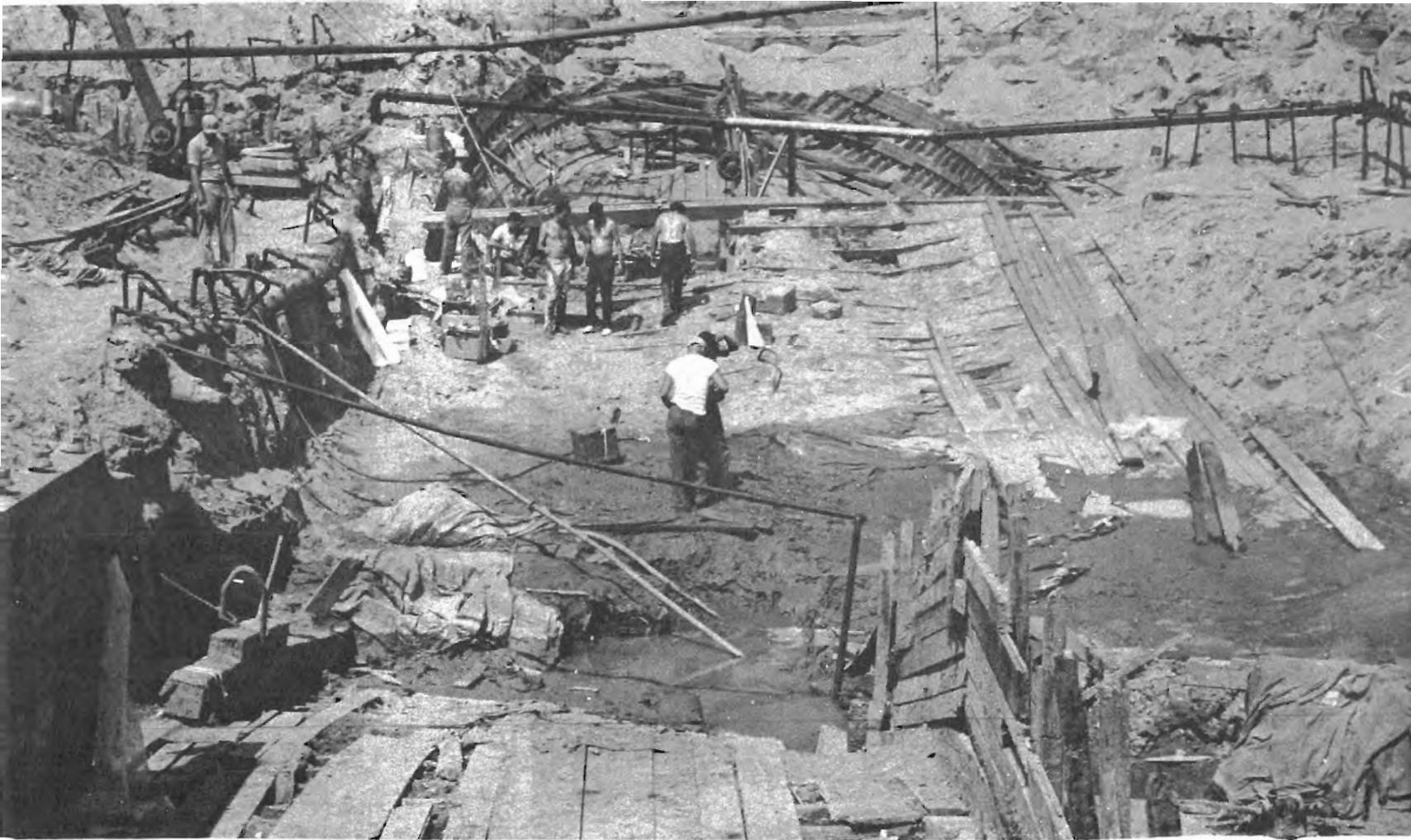
Steamer sunk—We learn from Nutt and Co., that the steamer "Bertrand" of Copelins and Co's., St. Louis and Idaho



*This view looks southeast toward the stern and shows the depth of the Bertrand below the present land level.*



*Much of the cargo of the Bertrand has been removed in this view to the south.*



*The Bertrand's lower mid section is shown in this view from the stern, looking toward the north.*



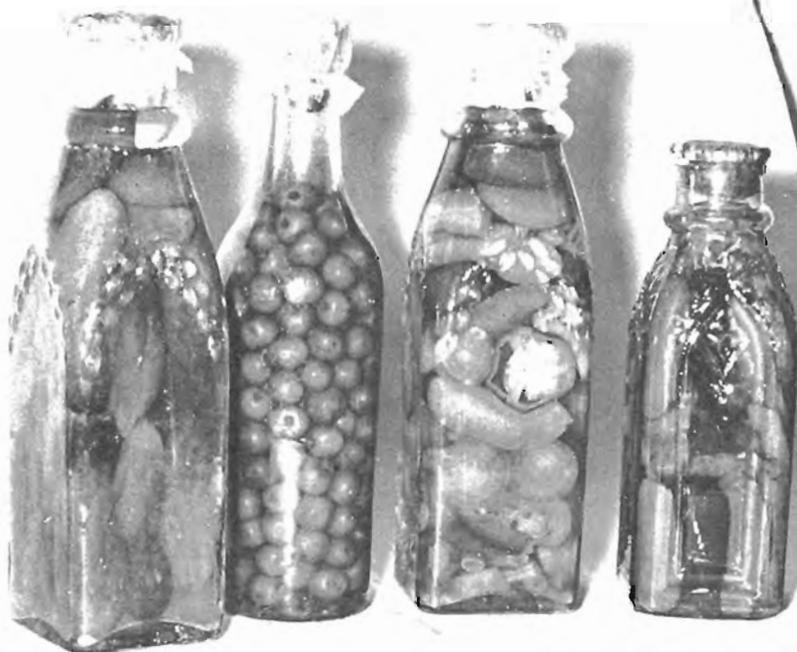
*The boat's stern rudders were constructed of heavy rough sawed planks.*



*Workmen are removing and recording Bertrand cargo. Author Jerry Petsche is in the center foreground.*



*Ed Dobb, Laboratory Supervisor, National Park Service, separates jackets recovered from the Bertrand. Among foodstuffs carried in its hold included (from left) pickles, brandied cherries, assorted pickles and peppers. (Photos, Omaha World-Herald)*





*A cargo box from the Bertrand is addressed to Stuart & Co., Deer Lodge, Montana. (Photo, Omaha World-Herald). Lamps and chimneys were recovered unbroken. (Photo, National Park Service)*



line was sunk four miles above this city on Saturday evening last [sic]. She struck a snag and sank in ten minutes in 12 feet of water. Boat and cargo valued at \$100,000 total loss. No lives lost.

William Houston Gallaher, traveling up the Missouri aboard the steamer *St. Johns*, passed the site of the wreck on Sunday, April 9, and recorded the following in his diary:

At 10 1/2 O'clock reached the wreck of the "Bertrand." Badly sunk to cabin floor, total loss except light freight from upper deck which was all taken ashore, and built into shanties for the protection of the crew. Passengers all up at "Desoto" eight miles above. While laying at the "Bertrand" Fannie & Annie Campbell came down to the wreck.<sup>2</sup>

By sinking, the *Bertrand* joined over 400 other such crafts that met disaster of one form or another on the unpredictable Missouri during the steamboat era. Careful inspection of the framework of the boat during excavation revealed a rend on the hull bottom approximately 15 feet to the rear of the bowsprit. While this may be evidence of the effects of the snag, several other major structural members also show considerable damage.

According to F. M. McNeely of Norfolk, interviewed by an Omaha newspaper in 1896,

the insurance company which carried the risk on the cargo was notified and sent a force of men to recover it. They commenced the work and by the aid of divers removed a small portion of it, when another boat, the *Cora* [*Cora II*], on which the same company carried the risk, was wrecked a few miles above where the *Bertrand* lay. For some reason they abandoned the *Bertrand* and went to work on the *Cora*. When they had completed their task there, the *Bertrand* had disappeared in the sand, and the wreckers gave it up as a bad job.<sup>3</sup>

McNeely's brother was one of the divers brought in by the insurance company, and he assisted his brother in "recovering the portion of the cargo that was saved." At the time of the story, McNeely had joined with three other Nebraskans in an attempt to locate the *Bertrand* and salvage the materials in the hold. They were making elaborate preparations and were running core testings at the site they believed was that of the *Bertrand*. No further newspaper accounts of this early attempt at

salvaging have been located, and the exact site they were working is not known. <sup>4</sup>

The amount of material taken off the *Bertrand* at the time of its sinking and attempted salvage in 1865 is not known, but during the excavation it was abundantly clear that most of the driving mechanism—including the pistons, paddle wheel, and steam fittings—had been removed.

A traverse of the DeSoto Bend area (with attention to terrace formation) and inspection of old maps and air photos reveal evidence of several channel changes in the past 100 years. Prior to the time the U.S. Corps of Engineers dredged a new channel to finally stabilize the river in the area, at least five major shifts can be detected. That the channel was undergoing a rapid change in 1865 seems clear when one compares early survey plats with a Corps map made a few months after the sinking. The change in the channel at the time, coupled with the rapid covering of the hull with silt and sand, were very likely important agents in the preservation of the cargo. The tightly packed blue clay in the holds—virtually sealing the artifacts from free oxygen—attests to a considerable deceleration of water flow from the rate at which it must have been at the time of sinking.

A number of basic engineering techniques were employed in the recovery of the cargo. During the summer and fall of 1968, the salvors attempted a dredging and sumping operation which, while not altogether fruitless, proved inadequate when the clay layer over the boat would not yield to hydraulic suction. After consultation with a de-watering firm, a system of 210 well points, inserted hydraulically and encircling the boat, enabled the salvors to lower the water table 18 feet. Pumping ultimately at the rate of 4,100 gallons per minute (24 hours a day) with eight- and ten-inch pumps, the table was maintained at the approximate level of the hull bottom.

Cargo was recovered following the charting, photography, and removal of the decking. The freight, packed in boxes, kegs, barrels, or wrapped in burlap, was found tightly sealed in the holds by the blue clay, impervious to water short of high pressure hydraulics. Names of consignees, manufacturers, etc., were recorded in the field following clay removal with jet sprays. The lots were then sealed in polyethylene and were removed to a cool, moist storage room to await preservation and stabilization. The highly perishable materials include 1,200 cubic feet of textiles now under refrigeration, 1,800 boots, shoes, and other leather objects, and fragments of paper labeling.

Among the consignees significant in the history of Montana Territory were Frank L. Worden and Granville Stuart. Worden was a pioneer merchant from Hell Gate (Missoula). Stuart, a gold miner, pioneer merchant, historian, and early legislator, operated a mercantile business and outfitted mining establishments at Deer Lodge.

An assessment of the technology and economy of the mining area on the basis of the *Bertrand's* cargo is premature. However, even casual inspection of the artifacts is revealing of the boom brought on by the Montana discoveries at the Kootenai mines, Silver Bow Creek, German Gulch, and elsewhere. Various assortments of bitters (some with an alcoholic content of 38 percent by volume), wines, champagnes, a variety of table condiments, canned goods, and other foods attest to comfortable living for at least a segment of frontier society. The array of agricultural implements is impressive. Large plows with disc sod cutters, hoes, cow bells, and butter churns show clearly that mining was not the only economic base of the territory in the 60's. But that the demand for mining implements was at a record level is quite apparent. Blasting powder, detonating devices, picks and shovels, assaying pestles and mortars, tool and die equipment, hob nailed boots and mercury (used in the "amalgaming" process of gold refining) were all present.

As mentioned above, research in conservation, preservation, and history will continue for a considerable time. The preservation of artifacts which have survived in submerged, fresh water environment is quite complex, and continues to require the assistance of a broad spectrum of experts well trained and experienced in the preservation of wood, textiles, paper, metals, and other objects. The hulk of the boat itself, while expected by wood authorities to have suffered slight deterioration during its long submergence, may at some future time be raised. Should this become possible, another set of problems must be faced, not the least of which will involve studies of weight, mass, volume, and density to determine buoyancy, and engineering feasibility research directed at determining alternatives to raising the hulk for eventual exhibition. Pilot studies in these areas have already been initiated by the National Park Service, but in the main these have been limited to the assembly of raw data. More immediate and pressing problems and research requirements can be summarized as follows:

1. The development of techniques to preserve textiles, paper and leather objects—as well as other items known to exhibit the least stability when exposed to a free oxygen atmosphere.

2. Continuing research to determine optimum methods of preserving more stable artifacts.

3. Continuing accession and description of all cultural objects.

4. Historical research on the *Bertrand* with reference to steamboating on the Missouri and the economy and technology of the North American frontier during the 1860's.

5. The description of the techniques used in the search, location, and subsequent excavation of the riverboat.

6. The study of the architecture and other physical properties of antiquity.

7. The recording (for historical purposes) of all field information regarding manufacturers, consignees, etc.—obtained chiefly through observation of cargo stenciling.

8. Attendant administrative responsibilities and coordination of activities by the National Park Service and the Bureau of Sport Fisheries and Wildlife.

## NOTES

1. Charles W. Martin, "Herndon House Register, 1865-1868," *Nebraska History*, 48, (Spring 1967), 31.

2. James E. Moss, ed., "Ho! For the Gold Mines of Montana. Up the Missouri in 1865. The Journal of William H. Gallaher." *Missouri Historical Review*, 57, (January 1963), 163.

3. *Omaha Weekly Bee*, July 22, 1896, p. 2

4. *Ibid.*