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MUSSEL SHOALS VS. MUSCLE SHOALS

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Seldom is malacology concerned with problems of toponymy. There has been one question long standing, however, which in spite of an official ruling has never been completely settled the minds of some malacologists. While the famous rapids in the Tennessee River, habitat of bundant river mussels but known officially and most commonly as "Muscle Shoals." are no longer existence, the name is perpetuated by the hydroelectric plant and by a nearby town bearing the some name. It is interesting to trace the historical development of this name and its relationship the work and publications of malacologists.

In Alabama: A Guide to the Deep South. (W. P. A. Writers' Project, 1941), following account of Muscle Shoals is given: "About 1779 the first white rivermen paddled inbe the region and established a trading post here. They named the rapids Muscle or Mussel Shoals, eggested either by the abundant shellfish or the strong arm muscles required to paddle a boat arough the rapids." Apparently from the beginning there was uncertainty as to the actual origin and spelling of the name. The spelling "Muscle Shoals" appeared early in such sources as the Map of Tennessee Government by John Ried in 1795; Winterbothem's American 113: of 1796; Reports of the Chief of Engineers, U. S. Army, and the Twentieth Congress, First emion, in 1828; the Tennessee Gazetteer by Eastin Morris in 1834; and charts of the Tenthee River made for the U. S. Navy by the Coast Survey, 1864-65. On April 5, 1892, the U.S. leard on Geographic Names, in view of past usage, rendered a decision in favor of "Muscle Shoals." pparently the spelling "muscle" in reference to bivalve mollusks was common, at least in the Alabama-Tennessee region, during those years. Also it is understandable why non-malacologists reponsible for the above mentioned documents, carefully considered by the Board, would natural. think of "muscle" rather than "mussel." Probably but few of them were familiar with the animsow most commonly known as mussels. Even the malacologists of that period usually employed terms "naiad" or "bivalve" for these mollusks.

Practically all reference sources - dictionaries, atlases, gazetteers, encyclopedias, almanacs, evernment reports, maps, etc. - published since the Board's decision have used the official speling of "Muscle Shoals," but not without some hesitation in certain cases. Some list both spellings, give preference to the official form. The 1914 edition of Funk and Wagnalls New Stand-Dictionary of the English Language, for example, listed the rapids under two ** parate names. "Muscle Shoals" and "Mussel Shoals," but gave preference to the first. Even as

as 1949 the Encyclopedia Britannica states under the entry "Muscle Shoals" that "the first part of the name is probably the obsolete form of mussel." Early writers were divided as to usage. An article published in Harper's Weekly in 1890 was entitled "Mussel Shoals Canal," but was indexed under "Muscle Shoals" as the primary entry and under "Mussel Shoals" as a secondary classification in Reader's Guide to Periodical Literature. Beginning with twentieth century literature, indexing of the Reader's Guide does not again use the classification "Mussel Shoals" with a single exception in volume 7 (Literature published 1925-28), and then only as a synonym of "Muscle Shoals."

It was the eminent malacologist A. E. Ortmann who pleaded in 1924 (Science 60: 565-6) that "the common and now official spelling "Muscle Shoals" should be discarded for the more correct one "Mussel Shoals"." Ironically his article, entitled "Mussel Shoals," was catalogued in the Reader's Guide to Periodical Literature under "Muscle Shoals." Ortmann used the spelling which he advocated in his own scientific papers, but strangely enough did not capitalize the name of the rapids. His usual reference to them was stated as "at the mussel shoals near Florence" (Proc. Am. Phil. Soc. 57: 521-626, 1918). A reply to Ortmann by G. H. Matthes ("Muscle Shoals vs. Mussel Shoals." Science 61: 209. 1925.) claimed that the old spelling for bivalves was "muscle shells," so named because of the strong muscles which close the shells. While he calls attention to spellings in old dictionaries and maps as examples, he does not mention any scientific work using such a spelling. Early writers about the region were probably not aware of the difference. Few people in recent times associate bivalve mollusks with the name "muscle," It appears that such a spelling has not been generally applied to bivalves since the 19th century, although certain local exceptions have been reported by Meredith F. Burrill, Executive Secretary of the U. S. Board on Geographic Names. The problem seems to arise from an early spelling on the part of writers not familiar with the existence of the two homonyms or who preferred to use the optional spelling for bivalves. Place names derived from mussels have long been used elsewhere such as Musselburgh, Scotland; Mussel Aa (River), Netherlands; and Musselburg, Canada. In 1924, the U. S. Board on Geographic Names reconsidered the spelling of Muscle Shoals but made no change in the matter.

It is interesting that in several other instances the same confusion has apparently existed. The U. S. Board recognizes the name of a village and a township in Chariton County, Missouri, as Musselfork. In Lippincott's New Gazetteer of 1913, however, they were both listed as "Muscle Fork," while the stream was called "Muscle River," They appear likewise in Lippincon Pronouncing Gazetteer or Geographical Dictionary of the World edited by Heilprin and Heilprin of 1922. While a creek in Queensland, Australia, is known as "Musselbrook," a town in New South Wales goes under the name of "Musclebrook," according to the Library Atlas of the World (1914). Other confusions have been noted in the following instances. Musselbed Shoal (a light station in Rhode Island), Mussel Point (a point in Texas), Musselshell River (in Montana) are listed as such in the Sixth Report of the U. S. Geo graphic Board (1933). The Lippincott volume of 1922 mentioned above lists the "Muscle" shell River" of Montana as an alternate spelling of "Mussellshell River." The Encyclopedia Britannica World Atlas (1947) also lists for Montana the village of Musselshell in Mussels shell County, through which the river by that name passes. Only "Muscle Shoals" appears under such a spelling in these later two sources. However, James McCormick, a former secretary of the U. S. Board on Geographic Names, cited in 1924 the personal journals of Lewis and Clark who referred in 1805 to the "Muscle Shell River" in their entries of May 20 and 21 to what is now officially known as the Musselshell River. Also, "Mussel Point," Texas, appeared on a U. S. G. S. source as "Muscle Point" according to the Board's records of 1908. In 1909 the postmaster of Providence, Rhode Island, stated that the light station in Narragansett Bay was known as "Musclebe Shoal Light" and the shoal was called the "Muscle Bed" without known exceptions. At Cape Ann, Massachusetts, a headland was labelled as "Muscle Point" or "Muscle Rocks" on all of the early maps of that region which have been examined. However, the roadway, to this place, which was listed in the Gloucester Directory for the first time in 1925, has always been given as "Mussel Point Road." The recent Lucas maps (1935) of this region spell both the name of the point and of the road as "Mussel." It is interesting that A Geographic Dictionary of Massachusetts by Henry Gannett (1894) used the spelling "Muscle Point" for this headland at Cape Ann, but lists a similar one on Cape God as "Mussel Point." There is a similar "Mussel Point" at Pacific Grove. California, but the only reference to this found by the writer is in an article published in THE NAUTILUS (69: 82, 1956). The spelling employed is probably correct according to current usage and the one to be expected in a journal of malacology.

The postmaster at Florence, Alabama, informed the U. S. Board in 1914 that "Muscle Shoals" was the more commonly used spelling in that locality although even at that early date the local press varied in its usage. The War Department engineer at the canal at that time used the spelling "Muscle." About the same time the postmaster at Sheffield, Alabama, reported "Muscle Shoals" as the common form although sometimes the name appeared as "Mussel Shoals." The corporation formed to develop water power used "Muscle Shoals" in its corporate name. An amusing and seemingly incongruous item appears in Henry Gannett's book American Names (1947) which reads "Muscle Shoals -- series of rapids in the Tennessee River so named because of the great number of mussels found there." In another reference work (Cram's Modern Reference Atlas of the World, 1931) is recorded a town in Butler County of Alabama by the name of "Mussel." Nowhere else has this been found listed. In its brief existence it may have been unique in escaping the problem which has existed in all other cases involving that name.

Creation of Wilson Dam, completed in 1925 by the Tennessee Valley Authority, destroyed the greater portion of the rapids near Florence but not the controversy over their name. Calvin Goodrich, in his papers on the mollusks of the Tennessee River published in the 30's and 40's, used the official spelling. On the other hand, as late as 1942, J. P. E. Morrison in his study of the shell mounds of the Pickwick Landing Basin in the Tennessee River Valley (Smiths. Inst. Bur. Am. Ethnol., Bull. 129, pp. 339-392. 1942) repeatedly and consistently used the name "Mussel Shoals."

The official spelling of Muscle Shoals, now so widely used and the only official name using "muscle" in reference to river clams, will very likely never be changed, and there is little argument for doing so. However, it will probably always remain a slight irritation to many malacologists to refer to the famous rapids with their once abundant mussel fauna as "Muscle Shoals."

My thanks go to Dr. Hallock F. Raup, Head, Department of Geography and Geology of Kent State University and Meredith F. Burrill, Executive Secretary of the U. S. Board on Geographic Names, for assistance in tracing the ramifications of this controversy.

ECOLOGICAL DATA -- 1. (Continued from page 22)

- (B) Chaudière Falls, within the city of Ottawa, are a major barrier to migration of Mollusca. Naiades may have reached that part of the Ottawa River above the Falls as parasites on fish able to scale the Falls or, during late Pleistocene time, when the Ottawa served as an outlet for the upper Great Lakes. The problem is an interesting one that will bear further investigation.
- (C) Skead's Mills was on the Ontario shore of the Ottawa River just above the Chaudière Falls. The mills have long since been razed.
- (D) Meach Lake is the presently accepted spelling. The writer studied its molluscan fauna (1935, Can. Jour. Res., 13 (D): 45-59). The lake lies some 20 miles north of Ottawa. It is one of several in a chain drained by a tributary of the Gatineau River, itself a tributary of the Ottawa.
- (E) Kettle Island is in the Ottawa River just east of the outlet of the Gatineau River. It is surrounded by shallow sandy areas abundantly populated by Naiades in Latchford's day but later (1935 to 1945, perhaps earlier) polluted by mill waste which destroyed the Naiades. The Naiades, including Elliptio complanatus, were still abundant farther downstream when I collected there some 15 or 20 years ago.
- (F) There may be some connection between the disparity in size of the shells of Meach Lake and Kettle Island and the geology of the two areas. The basin of the Meach Lake drainage consists of Precambrian igneous-metamorphic rocks poor in calcium carbonate, partly covered by glacial drift, whereas the Ottawa River flows over both Precambrian rocks of the same nature and Ordovician limestones. For example, the lip of the Chaudière Falls is made up of Ordovician limestones as are the rocky headlands on the south shore of the Ottawa River above Kettle Island (see maps 413A and 414A, in Wilson, 1946, cited above). Caution must nevertheless be exercised in reaching such conclusions because the Kettle Island locality was especially favored in another respect: it was just far enough below the sewage outlet on the Ottawa side of the river to provide abundant microscopic food, yet not near enough to it to cause heavy pollution beyond the tolerance of the Naiades.

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