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ADDENDA ON MUSSEL VS. MUSCLE

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In issue No. 4 of *STERKIANA* (May, 1961) I discussed in considerable detail the use of the spellings 'mussel' and 'muscle' in reference to bivalve mollusks. Most of the controversy has revolved about the 'mussel shoals' (officially the Muscle Shoals) of the Tennessee River. However, the confusion has been world-wide and apparently the variation of spelling has come about for different reasons. In general, use of the spelling 'muscle' is an old and obsolete form whereas 'mussel' is more recent and preferred. Since publication of my report, a number of other instances of the use of this term have come to my attention which are sufficiently interesting to place on record.

In 1746 John Bartram published a paper in the *Philosophical Transactions* (43: 157-159) entitled 'Containing some observations concerning the saltmarsh muscle, the oyster banks, and the freshwater muscle of Pennsylvania.' Apparently this was the common spelling for bivalves at that time. In 1820 Caleb Atwater, in his 'Description of the antiquities discovered in the State of Ohio and other western states' (*Trans. and Coll. Amer. Antiquarian Soc.* vol. 1, p. 114 and 226), wrote of finding 'muscle shells' in Indian graves.

On 11 September 1859 Alpheus Hyatt wrote to Frederic W. Putnam from the banks of the

Kentucky River. Both of these young men were students of Louis Agassiz at Harvard University. Hyatt, on a collecting trip, sent notes to Putnam on specimens shipped to the Agassiz Museum. In reference to the bivalves Hyatt wrote, 'The muscles are from shoals 2 to 2½ miles above Hickman's Landing up Kentucky River--I know localities where one man and myself can load a boat with muscles in 6 hours.' Another correspondent of Putnam was F.A. Stratton who wrote from Chattanooga, Tennessee, 17 July 1877, that certain archaeological specimens were found among 'muscle shells.' Another archaeologist, Ernest Volk, wrote to Putnam, who was then Curator of the Peabody Museum of American Archaeology and Ethnology at Harvard University, 23 November 1891, concerning an excavation in New Jersey reporting that 'This pit had no traces of any muscle shells.' Putnam repeated this spelling in his official report to Director-General George Davis of the World's Columbian Exposition for which the excavation was made.

In a report on 'Artificial shell deposits in New Jersey' published by Charles Rau (*Annual Report, Smithsonian Institution for 1864: 370-374. 1865*), the familiar blue mussel, *Mytilus edulis* was referred to with the modern spelling of 'mussel.' Two years later, however, D.G. Brinton writing on the 'Artificial

shell deposits of the U. S.' (*ibid.* for 1866: 356-358. 1867) recorded his observations on the Tennessee River at 'The Muscle Shoals, and IttheyI are composed almost exclusively of the shells of the freshwater muscle (*Unio virginiana*, Lamarck?) -- The Tennessee muscle is margaritiferous, etc.'

In his report of the *Greely Arctic Expedition* (1884), A. W. Greely makes reference to a body of water named Muscle Bay (p. 25). In his volume on the 'Archaeology of Ohio' (1903), M. C. Read, in describing the use of shells both fresh and salt water, stated that, 'Fresh water muscles were used as knives and scrappers, as spoons and cups.' Strangely enough, however, at the end of the book he makes a reference to 'Mussel Shoals' of Tennessee using the preferred spelling for bivalves! Since Read was a naturalist, he undoubtedly knew that 'mussel' was the current spelling for river clams and his use of the spelling 'muscle' in the same volume is difficult to understand especially since he went contrary to the popular and official spelling of Muscle Shoals.

S. S. Berry entitled a paper he published in the *Nautilus* (26: 130. 1913) as 'A list of Mollusca from Musselshell Valley, Montana.' The river and valley in Montana apparently have always been spelled as 'Musselshell.' In 1930 Calvin Goodrich adopted the official spelling for his paper on 'Goniobasis in the vicinity of Muscle Shoals' (*Occ. Papers Mus. Zool., Univ. Mich. No. 209: 1-125*).

In the U.S. Coast Pilot for the Atlantic Coast (St. Croix River to Cape Cod, 4th edition. 1941) appears the name 'Muscle Ridge Channel,' and on the revised map of the U.S. Coast and Geodetic Survey (Map 243, East Coast Mass., Ipswich Bay to Gloucester Harbor) prepared in 1958, the name Muscle Point was retained in spite of the fact that other recent maps have used the spelling 'Mussel Point' and

the road way to this promontory has always been known as Mussel Point Road. Oddly enough the *Gloucester (Massachusetts) Daily Times* issue of 7 July 1967 refers to Muscle-Point, reverting to the obsolete spelling which had never been used locally.

Nearly all current authors use the preferred spelling of 'mussel.' For example, R. P. Patterson entitled a report 'Notched Mussel Shells from a site at Marietta, Ohio' (*Ohio Archaeologist* 12: 98-99. 1962). Stansbery has been among those who prefer the unofficial title of Mussel Shoals, but in his report to the American Malacological Union, he used both spellings to avoid confusion, viz. 'The Mussel (Muscle) Shoals of the Tennessee River revisited' (*Annual Rept. Amer. Malac. Union* for 1964: 25-28). This seems to be a good compromise. The following year, however, on the program of the Ohio Academy of Science (74th Annual Meeting, 1965) he designated the famous locality simply as the 'Mussel Shoals of the Tennessee River.'

I know of only one current use of the term for bivalve mollusks where the obsolete spelling 'muscle shell' is used. In a display of the Archaeology of Ohio at the Cleveland Natural Science Museum there is a label which reads 'Whittlesey Culture sites often yield large numbers of muscle shells with a central perforation.' Probably there will always be some variation in the spelling for the common name of bivalves.

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