

VI. *Extract of a Letter from Dr. John Bartram, to Mr. Peter Collinson, F. R. S. containing some Observations concerning the Salt-Marsh Musclee, the Oyster-Banks, and the Fresh-Water Musclee, of Pennsylvania.*

My good Friend,

Read Nov. 8. 1744. **I** HAVE observed something of an extraordinary Nature in our *Salt-Marsh Musclee*: By its fibrous Roots, which strike deep into the Soil, it seems to be of a vegetable Nature; for, it is highly probable, the Animal draws some Part of its Nourishment through them: They are fixed by these two Thirds of their Length in the Sand, with their broad Ends uppermost, which open at every Return of the Tide, to be replenished by the Salt-Water: When it is retreated, they are found lodged in the Grass, Sedge, Creeks, and Banks, singly and together in Plenty.

I herewith send you a Specimen, which will give you a better Idea of this wonderful Creature.

There you may plainly observe the Ligaments draw their Origin from the principal Parts of the Animal, and unite near the Extremity of the Shell, which they pass through on that Side of the Musclee that opens to let in the Water; then they divide again into many capillary Roots or Fibres, which penetrate and extend themselves into the Mud or Soil of the Marsh; which, by long Observation, seem to me for two Uses; first, as I have above observed, to convey
Part

Part of their Nourishment; which seems probable, by their being dispersed through the Body of the Muscle (This is better seen when alive; but now they are dry, one of the Specimens plainly shew it). See TAB. II. Fig. I.

The other Use of these fibrous Roots (for so I must call them), by their striking deep into the Mud or Sand, is to secure the Creature from being carried away by the Rapidity of the Tide: So that, in this Circumstance, they are somewhat analogous to Plants, whose Roots both nourish them, and secure them from the Injuries of Wind and Flood.

OUR *Oysters* are of an oblong Figure; they grow at the Sides and Bottoms of Creeks, Rivers, and Bays, near the Sea; but mostly in such a Situation where they are near or quite dry at low Water: They have the Power of Opening and Shutting, like the Muscle, to take in and retain the Salt-Water, which is their principal Nourishment: Tho' they stick in the Mud, they are not so secured as the Salt-Marsh Muscle before-mention'd; and tho' these *Oysters* grow in great Clusters or Heaps, commonly called *Oyster-Banks*, yet every one that is alive hath free Communication with the Air and Water, and Liberty to open and shut. If the *Oyster's* Way of growing may be compared to that of a Plant, I think there is great Similitude between it and the *Opuntia*, or *Indian Fig*; a Leaf produces and supports a Leaf, and so on: Thus the young *Oyster* grows on the Sides of the old one, which, by degrees, is so deep immersed in the Mud, that it dieth; but yet it serves to support the young one upright, until it comes to Maturity to produce others; and then that, by degrees, subsides; so that, by this Method, Banks of dead and living *Oysters* are extended of an inconceivable Length and Breadth through all our Coasts.

Our

OUR common *Fresh-Water Muscles* differ from our Salt-Marsh Muscle, in that they are not fixed to any Place or Thing, but have a Method of trailing along on the sandy Bottoms of Creeks and Rivers: They have the Power not only of opening and shutting their Shells at Pleasure, but have, moreover, the Power of creeping (*a*) along as it were like a Snail, by turning upon the upper Edge that opens, and so work themselves along the soft yielding Sand in little Furrows about half an Inch deep. I have traced them for several Yards, by these little Channels, when the Tide is down, and left the Sands bare.

If these few Observations prove acceptable, it will be a Pleasure to

Your Friend,

John Bartram.

VII. *A Letter from Mr. Christ. Hunter, to Dr. Mortimer, Secr. R. S. serving to accompany a Copy of an antient Roman Inscription at Rochester in Northumberland, and two others at Rivingham.*

Worthy Sir,

Durham, Sept. 9. 1744.

Read Nov. 8.
1744.

KIND Providence enabling me to outlive such Members of the *Royal Society* I have had the Happiness to correspond withal,
Dr.

(*a*) I have seen this of our Horse-Muscles in Ponds here in *England*.

Fig. 1. p. 158.

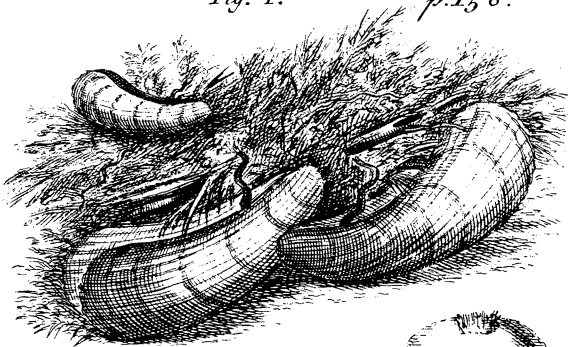


Fig. 2. p. 160.

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FIDA. VARDVL. CREO. &
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Fig. 11. p. 238.

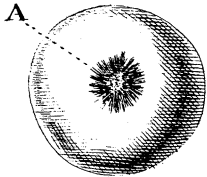
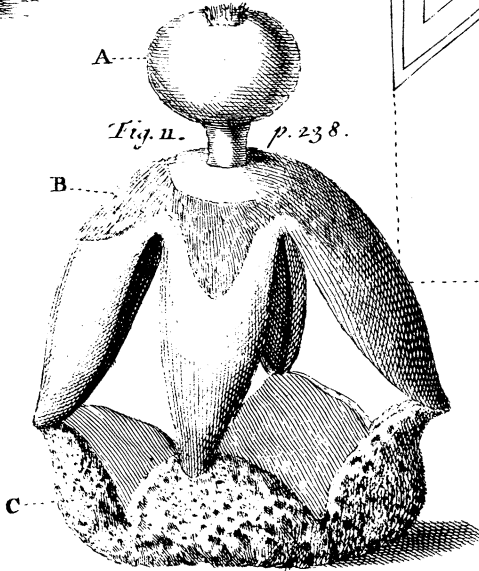


Fig. 12. p. 238.

Fig. 10. p. 208.

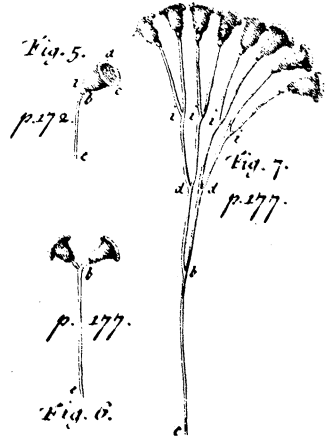
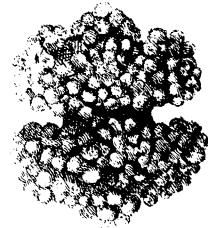


Fig. 8. p. 195. 200.



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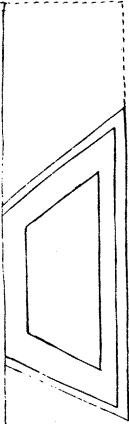


Fig. 3. p. 160.

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Fig. 4. p. 160.

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Fig. 5 p. 201.

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Fig. 1. p. 158.



Fig. 2. p. 160.



Fig. 3. p. 160.
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VICTORI
VLIVS LI
IVS TRIB
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Fig. 4. p. 160.
FORTVNAE
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A E T
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IMP·CAES·M·AVRELIO
SEVERO·ANTONINO
PIO·FELICI·XXG·PARTHIC·
MAX·BRIT·MAX·GERM·
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Fig. 11. p. 238.

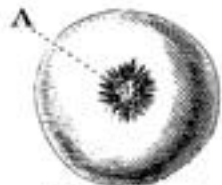
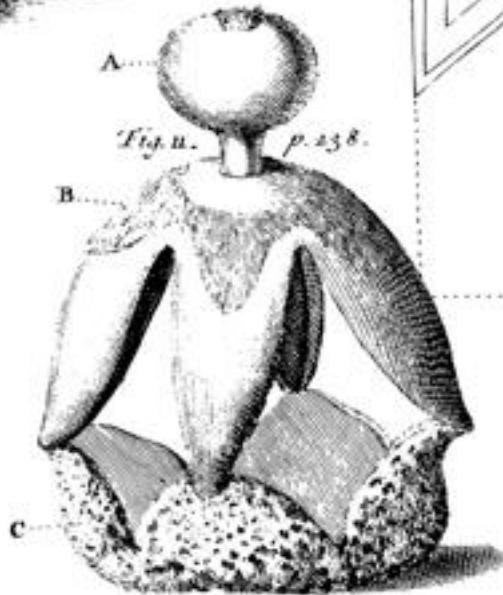


Fig. 12. p. 238.

Fig. 10. p. 208.

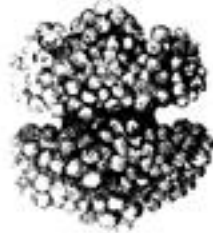
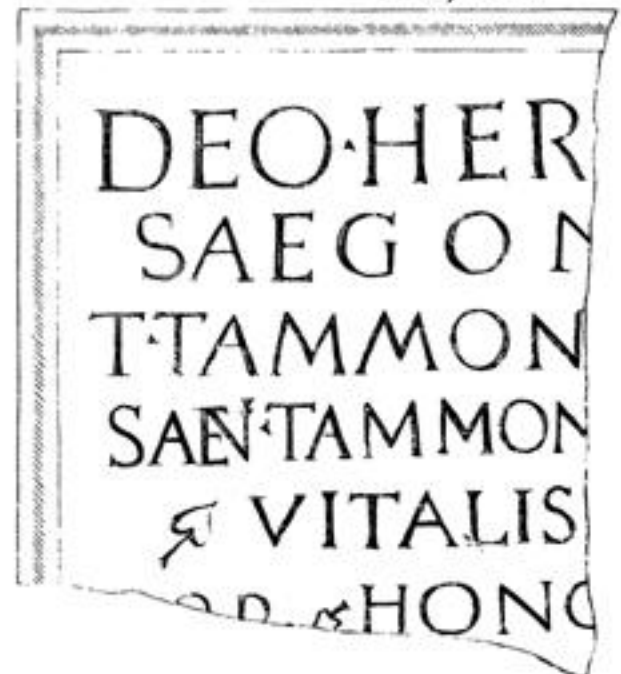


Fig. 9. p. 201.



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VITALIS
HONO



Fig. 8.
p. 195. 200.

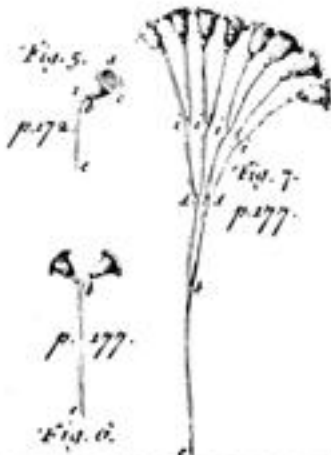


Fig. 5.
p. 177.
Fig. 7.
p. 177.
Fig. 6.
p. 177.