

Primary Source:

James Petiver's Instructions to Collectors



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Introduction

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James Petiver was a London apothecary and Royal Society Fellow who built extensive colonial networks of ship captains, surgeons, and trading company employees who collected biological specimens across the Atlantic World. Petiver and other Royal Society Fellows relied on these colonial networks to acquire natural specimens and scientific knowledge across the British Empire. As you read, consider how the instructions provide insight into how the Royal Society's institutional networks operated in practice.

Discussion questions

- What does Petiver's correspondence and the instructions tell us about British scientific networks?
- What kinds of skills, equipment, and other supplies naturalists and their collaborators need?
- What do Petiver's writings suggest about the relationship between specimen collecting, science, and colonialism?
- Unfortunately, we don't have records from the people Petiver was saying should help with collecting. What might we want to know about them, and how do you think we could find that out?

James Petiver's Instructions to Collectors

Source: James Petiver, "Letter to George Jesson, July 20, 1716," Sloane MS 3340, f. 252r, British Library, London; and James Petiver, "Letter to Madam Carter, January 6, 1696," Sloane MS 3332, f. 173v, British Library, London, quoted in Kathleen Susan Murphy, "James Petiver's 'Kind Friends' and 'Curious Persons' in the Atlantic World: Commerce, Colonialism and Collecting," *Notes and Records: The Royal Society Journal of the History of Science* 74, no. 2 (October 23, 2019): 272–73. James Petiver, "Brief Directions for the Easie Making and Preserving Collections of All Natural Curiosities," c. 1709, Oversize Ka P44.3o 1695-1715 (7), Arnold Arboretum Library, Harvard University, Cambridge, MA.

Note: Historical sources often contain language that modern readers may find outdated or offensive. Despite this problematic language, it is important to preserve it when analyzing history because it helps us recognize how perspectives and power dynamics have shifted over time.

From letters to collaborators:

"[Have] some of your blacks while you're on the Island...take & kill whatever butterflies & Moths they meet both great & small."

"[A]ny Servant or Negro on a Sunday or at any time . . . you can spare him once every week or Fortnight to go into the neighboring woods for an hour or two &...fill a Book with 2 or 3 Spriggs of a sort of whatever Trees Bushes or Herb he shall see."

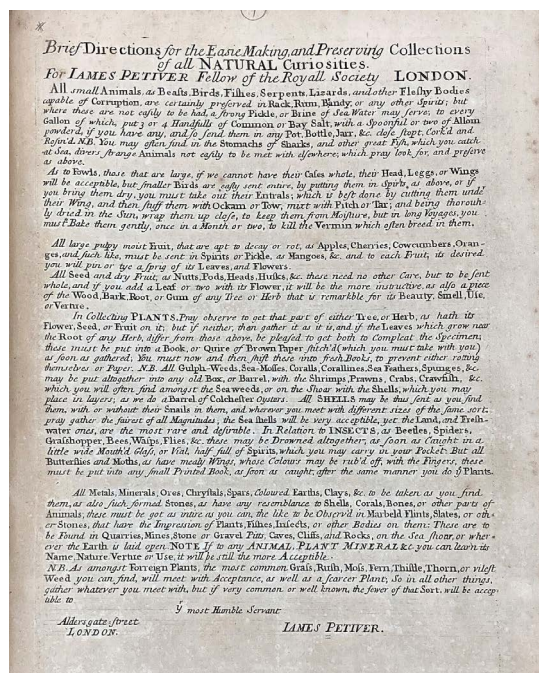
"Brief Instructions for Easi[ly] Creating and Preserving Collections of All Natural Curiosities"

To collectors in foreign parts:

"I earnestly recommend to all curious Persons, especially Surgeons of Ships, Captains, and other intelligent Persons who travel into Foreign Countries, that they would be pleased to gather for me all sorts of Plants, Seeds, Stones, Minerals, and Animals..."

On using local knowledge: "Learn the name, nature, properties, or uses of each specimen from the local people, especially noting what diseases they cure, or what other purposes they serve..."

On utilizing available labor: "I recommend that you have some of your blacks employed in this work, as they are often well acquainted with the nature and properties of plants and animals in their country. They can be very useful in collecting and identifying specimens..."



Text of James Petiver's instructions for specimen collectors, c. 1709.

1. Preserving small animals: “All small animals, such as mammals, birds, fish, snakes, lizards, and other perishable creatures, can be preserved in rum, brandy, or other spirits. A strong brine (salt water) solution may be used if these aren’t readily available. [If available add 3-4 handfuls of common salt and 1-2 spoonfuls of powdered alum (a compound of aluminum and potassium) for each gallon of seawater. Send them in a tightly sealed pot, bottle, or jar.”

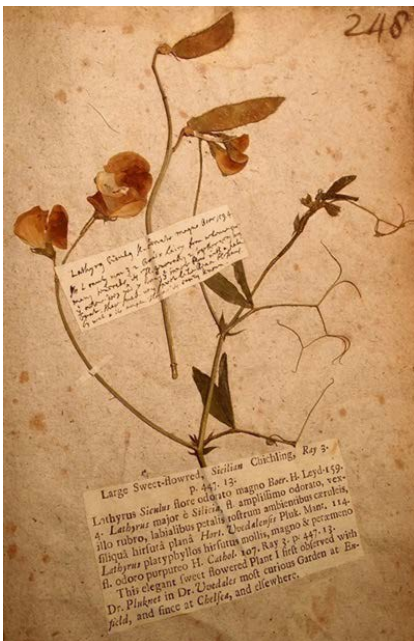
Note: “You may often find unusual animals in the stomachs of sharks and other large fish caught at sea. Look for these and preserve them as described above.”



A foldout from James Petiver's, The Petiverian Museum, 1695.

2. Preserving birds: “For large birds, if you can’t preserve the entire body, the head, legs, or wings are acceptable. Smaller birds can be sent whole by placing them in spirits, as described above. If sending them dry:

- Remove the entrails by cutting under the wing
- Stuff them with oakum or tow mixed with pitch or tar (rope fibers mixed with tar typically used to waterproof ships)
- Dry thoroughly in the sun and wrap tightly to protect from moisture
- For long voyages, bake them gently once a month or two to kill any vermin”



An early preserved sweet pea specimen from Petiver's herbarium.

3. Preserving fruits: “Large, moist fruits prone to decay [like] apples, cherries, cucumbers, oranges[,] should be sent in spirits or pickles, like mangoes. Attach a sprig of leaves and flowers to each fruit if possible.

Dry fruits and seeds [like] nuts, pods, and husks[,] can be sent as is. However, it is helpful to include leaves, flowers, and a piece of wood, bark, root, or gum from trees or herbs with notable beauty, smell, use, or properties.”

4. Collecting plants: “Collect specimens with attached flowers, seeds, or fruit. If these aren’t present, collect the plant as is. For herbs, gather both upper and lower leaves if they differ. Place specimens in a book . . . of brown paper . . . as soon as collected. Transfer to fresh books periodically to prevent rotting.”

5. Marine specimens: “Seaweeds, mosses, corals, sea fans, sponges, etc., can be packed



Plate of marine life and crabs from Petiver's Historiam Naturalem Spec-tania, 1767.

together in a box or barrel. Include any shrimp, prawns, crabs, crayfish found among the seaweed or on shore, and shells.”

6. Shells: “Send shells as found, with or without the creatures inside. Collect various sizes of the same type when possible. While sea shells are welcome, land and freshwater shells are rarer and more desirable.”

7. Insects: “Beetles, spiders, grasshoppers, bees, wasps, flies, etc., can be drowned in a small, wide-mouthed vial half-filled with spirits, which you can carry in your pocket.

Butterflies and moths, whose wings have delicate scales that can be rubbed off, should be placed in a small, printed book immediately after capture, similar to how you preserve plants.

Note: If you can learn the name, nature, properties, or uses of any animal or plant, this information is valuable.”

On transportation: “Pack specimens carefully in boxes lined with paper. Send them by the first safe opportunity aboard ships returning to London. Include notes about where each was found and what local people told you about its uses...”

Important: “Even the most common grass, rushes, moss, fern, thistle, thorns, or weeds you find in foreign lands will be welcome, as will rarer plants. Gather whatever you encounter for all specimens, but if it’s very common or well-known, fewer samples of that type will suffice.”



Plate of shells from a book by a later 19th century naturalist. The shell in the center was earlier described by Petiver.

Your most humble servant, James Petiver, Aldersgate Street, London



The early HMS Endeavor, painted in 1768.

Image Citations

Page 1:

Jacobi Petiveri Opera, Historiam Naturalem Spectantia, London: John Millan, 1764, Public Domain, <https://archive.org/details/jacobipetiverio00peti/page/n263/mode/2up>

Page 2:

James Petiver, Brief Directions for the Easie Making and Preserving Collections of All Natural Curiosities, c. 1709, Public Domain, https://commons.wikimedia.org/wiki/File:Petiver_specimen_instructions.jpg

Page 3:

Jacobi Petiveri Opera, Historiam Naturalem Spectantia, Vol. 1. London: Printed for John Millan, Bookseller, 1767, Tab. XV, Public Domain, <https://archive.org/details/jacobipetiveriop-11767peti/page/n110/mode/1up>

An early cultivated specimen of a sweet pea (*Lathyrus odoratus*), Natural History Museum, London, <https://royalsociety.org/blog/2020/05/remembering-james-petiver/>

Page 4:

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Lovell Reeve Augustus, Conchologia Systematica, or Complete System of Conchology: in which the Lepades and Conchiferous Mollusca are described and classified according to their natural organization and habits. Vol. 2. London: Longman, Brown, Green & Longmans, 1842, pl. CCLIX, fig. 1, Public Domain, https://ia601203.us.archive.org/BookReader/BookReaderImages.php?zip=/19/items/conchologiasyste02reev/conchologiasyste02reev_jp2.zip&file=conchologiasyste02reev_jp2/conchologiasyste02reev_0489.jp2&id=conchologiasyste02reev&scale=2&rotate=0

Thomas Luny, The Bark, Earl of Pembroke, later Endeavour, leaving Whitby Harbour in 1768, January 1, 1790, Public Domain, [https://commons.wikimedia.org/wiki/File:The_Bark,_Earl_of_Pembroke,_later_Endeavour,_leaving_Whitby_Harbour_in_1768_\(cropped\).jpg](https://commons.wikimedia.org/wiki/File:The_Bark,_Earl_of_Pembroke,_later_Endeavour,_leaving_Whitby_Harbour_in_1768_(cropped).jpg)