

“Remember the...age in which we live”  
SCIENCE, TECHNOLOGY, AND REGENCY SOCIETY

### Further Reading

#### **Austen and Science/Technology**

Knox-Shaw, Peter. *Jane Austen and the Enlightenment*. Cambridge University Press, 2004.

Wallis, Peter, and Colin Axon. *Innovation and Discovery: Bath and the Rise of Science*. Bath Royal Literary and Scientific Institution, 2011.

#### **Shelley and Science/Technology**

Curran, Stuart. “The Scientific Grounding of *Frankenstein*.” *Mary vs. Mary*, edited by Lilla Maria Crisafulli, Naples: Liguori Editori, 2001, pp. 283-292.

Hindle, Maurice. “Vital Matters”: Mary Shelley’s *Frankenstein* and Romantic Science. *Critical Survey*, vol. 2, no. 1 (1990), pp. 29-35.

#### **Regency and Romantic Science**

Fulford, Tim. “Man Electrified Man’: Romantic Revolution and the Legacy of Benjamin Franklin.” *Literature, Science and Exploration in the Romantic Era: Bodies of Knowledge*, edited by Debbie Lee et al., Cambridge Univ. Press, 2008, pp. 179-197.

Keen, Paul. “The ‘Balloomania’: Science and Spectacle in 1780s England.” *Eighteenth-Century Studies*, vol. 39, no. 4, (2006), pp. 507-535.

Yeo, Richard R. *Defining Science: William Whewell, Natural Knowledge and Public Debate in Early Victorian Britain*. Cambridge University Press, 2003.

#### **Contemporary Sources**

Edgeworth, Maria and Richard Lovell Edgeworth. *Practical Education*. London, 1798.

Franklin, Benjamin. “The Kite Experiment, 19 October 1752”, reprinted in Joseph Priestley, *The History and Present State of Electricity, with Original Experiments* (London, 1767), pp. 179-181.

Whewell, William. *The Philosophy of the Inductive Sciences*, in 2 volumes. Cambridge: John W Parker J&J Deighton, 1840.



Antonio Carnicero, “Ascent of the Monsieur Bouclé’s Montgolfier Balloon in the Gardens of Aranjuez”, 1784. Wikimedia Commons.

We probably don’t think of scientific and technological advancements in relation to Jane Austen; however, the experiments and scientific pursuits that populate *Frankenstein* suggest that such topics were on readers’ minds when they read both novels. Understanding the way that science and technology operated in Regency society will help us think about why Shelley put such pursuits in the foreground of her novel, while Austen, perhaps, kept them in the background.

At the close of the eighteenth century, the study of natural philosophy gained increasing importance as a way to empirically understand the physical world. Although “scientists” were not recognized as professionals until the mid-nineteenth century, scientific pursuits were so intriguing that they often fell into the hands of amateur experimenters and local societies. Spectators also flocked to lectures and demonstrations put on by The Royal Society, and the latest discoveries were circulated in periodicals. Technology was increasingly a part of everyday domestic life, too. While “balloomania” held the attention of spectators in London and Paris, other achievements shaped a rapidly modernizing world. Electricity underpinned advancements in medicine, while the first steam locomotive, which ran in 1794, revolutionized travel.

During this period of scientific and technological transition, science and the arts were not so separate as we think of them today; the concerns of each were influenced by the other. Bearing this in mind, how might these discussions have galvanized Austen and Shelley’s own works?

## Key Terms



**The Royal Society**

The oldest national scientific institution, it was founded in 1660 and still operates today. It was founded with the mission of acquiring knowledge through experimentation and hosted public lectures and demonstrations.



**Natural Philosophy**

Considered the precursor of modern science, the term was dominant in the 16-19<sup>th</sup> centuries to describe the field of “men of science.” Natural philosophers sought to understand the physical world through quantitative or empirical means.



**Galvanism**

Muscle contraction by electrical current, a phenomenon accidentally discovered by Luigi Galvani in 1786. It was a controversial debate whether galvanism could restore life, hinging on whether life consisted solely of material substance.

## Discussion Questions

### Question 1

The full title of Mary Shelley’s novel is *Frankenstein; or, the Modern Prometheus*. What makes *Frankenstein* modern? Do we think of *Northanger Abbey* as a modern story? Why or why not? You might consider:

- Elements of the supernatural or of the scientific and human relations to these elements in each;
- Each novel’s response to literary genres, including the Gothic romance, the romantic comedy, and/or science fiction;
- *Frankenstein*’s adaptation of the Greek myth of Prometheus which, briefly summarized, recounts the Titan Prometheus stealing fire from the Gods and gifting it to humanity.

### Question 2

The full quote of this Context Corner’s title occurs when Henry scolds Catherine for letting her imagination run loose, envisioning the Gothic horrors that may have taken place in *Northanger Abbey*. He tells her, “What have you been judging from? Remember the country and the age in which we live. Remember that we are English, that we are Christians” (Vol. II Ch. IX, pg. 145).<sup>1</sup>

Henry invokes a sense of nationalism when he scolds Catherine for a lack of common sense in adhering to her fictions. Interestingly, theorists suggest that nationalism itself is a modern concept to connect people no longer tied by religion. In what other ways do *Northanger Abbey* and *Frankenstein* invoke a sense of English, national pride? You might consider:

- The passage beginning, “The rain continued – fast, though not heavy” and ending with the close of “Catherine’s anxious attention to the weather” (Vol. I Ch. XI, pp. 58-59). Although it is stormy, there are no mentions of lightning. Might this suggest Austen’s wariness of lightning’s political symbolism?
- *Frankenstein* as a travel narrative. Events take place throughout much of Europe and the Arctic north, although Victor and Henry Clerval’s tour of the British Isles provides a much-needed respite from the tribulations of bringing a Creature to life. If you have a computer, visit <https://mappingfrankenstein.wordpress.com/mapping-the-novel/> to visualize travel in the novel.

<sup>1</sup> All quotations from *Northanger Abbey* are from the Oxford World’s Classics edition (2003). All quotations from *Frankenstein* are from the Oxford World’s Classics edition (2008). Chapter numbers are given for quick reference within other editions.

### Question 3

Consider some of the many moments when Austen invokes technology and industry in *Northanger Abbey*: John Thorpe's attention to the superior iron-work of his new carriage (Vol. I Ch. 7, pg. 30; Vol. I Ch. IX, pg. 45) and Catherine's persistent attention to clocks and watches are just some examples (Catherine is said to have a watch in Vol. I Ch. IX, 47; The General checks his watch in Vol. II Ch. V, pg. 118; and Tilney keeps track of Catherine with his in Vol. II Ch. IX, pg. 144).

What relationship do Austen's characters show to technology? Does this relationship buttress Austen's satirical tone in the novel? We know of Austen as a keen observer; indeed, she is often described as having a "microscopic" attention to detail: could we imagine her as a spectator in public displays and experiments based on her propensity for observation?

### Question 4

Mary Shelley evokes tricity as giving life to the Creature in only one passage:

"It was on a dreary night of November that I beheld the accomplishment of my toils. With an anxiety that almost amounted to agony, I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet" (Vol. I Ch. 5, pg. 57).

Famously, Shelley excludes much other detail of the proposed science behind bringing the Creature to life. As a result, some critics have called the novel "switched-on magic" and Victor Frankenstein a "pseudo-scientist" (James Reiger, *Introduction to Frankenstein or, The Modern Prometheus. The 1818 Text*, Chicago and London: University of Chicago Press, 1982, pg. xxvii). Some critics believe there is a lack of scientific detail because Shelley simply did not know, while others have argued her father's social circle would have put her within earshot of the conversations of many prominent natural philosophers (Hindle 31).

What is the effect of keeping an air of mystery around the science of *Frankenstein*? Do you think Shelley chose to do this to produce a certain effect, or do you think it is the result of a lack of knowledge? How might we understand Victor Frankenstein as a figure in the 19<sup>th</sup>-century push to legitimize science as professional pursuit?

### Question 5

Consider the many adaptations of both *Northanger Abbey* and of *Frankenstein*. How do the different adaptations consider the relationship of the texts to contemporary technology? In the case of Austen, have adaptations sought to separate Austen from tokens of "modern" sentiments? In the case of Shelley, have adaptations put too much or too little emphasis on the science behind the fiction?



Paul Sandby, "Pony and Hooded Gig" (undated). Wikimedia Commons.