

**English Literature of the Romantic Period, 1798-1832**  
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**Backgrounds to the English Romantics, 1798-1832 – Science**

In this lesson, as a part of the contexts for the study of the English Romantics, 1798 to 1832, we will be looking at the context of science.

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It would seem odd to contextualize English Romantic writers with their emphasis on nature, imagination and children within the science of the age. However, much contemporary work has shown that many of the writers were keen observers of contemporary scientific developments. They had an acute and active interest in the science of the period. Various kinds of scientific interests mark the English Romantic writers.

Let us take as our opening move, Mary Shelley's classic horror tale, *Frankenstein*. It is appropriate to begin with this because it is the 200<sup>th</sup> anniversary of this particular novel. *Frankenstein* first appeared in 1818. Mary Shelley's classic horror tale incorporates the science of galvanism and several theories of life from that period.

(Refer Slide Time: 1:13)

Here is Victor Frankenstein, the scientist from Mary Shelley's novel speaking about his training in the sciences in universities across Europe. He is documenting a lecture by M. Waldman.

(Refer Slide Time: 1:34)

M. Waldman concluded with a panegyric upon modern chemistry...— “The ancient teachers of this science promised impossibilities and performed nothing. The modern masters promise very little; they know that metals cannot be transmuted and that the elixir of life is a chimera. But these philosophers whose hands seem only made to dabble in dirt, and their eyes to pore over the microscope or crucible, have indeed performed miracles. They penetrate into the recesses of nature and show how she works in her hiding places. They ascend into the heavens; they have discovered how the blood circulates, and the nature of the air we breathe. They can command the thunders of heaven, mimic the earthquake and even mock the invisible world with its own shadows.

(Refer Slide Time: 2:29)

In the novel, Viktor Frankenstein explores chemistry, biology and various sciences of his time, travels across Europe trying to find the secret of life, trying to find a scientific theory which would help him generate life in the laboratory. He does in fact discover the secret of life and he creates a creature whom he abandons and does not wish to take responsibility for. Mary Shelley's *Frankenstein* often regarded as the first science fiction novel is at the center of the Romantic period as well.

Let us move on to other sciences, specifically, to astronomy and the space sciences. Mary Shelley's husband, the poet Percy Shelley, had a long lasting influence in astronomy and other sciences. It has now come in for sustained attention. In *Prometheus Unbound* and *Epipsychidion*, Shelley would say several things drawing directly upon scientific theories.

(Refer Slide Time: 3:27)

The following is a quote from *Prometheus Unbound*:

I see a mighty darkness  
Filling the seat of power, and rays of gloom  
Dart round as light from the meridian Sun

In *Epipsychidion*, Percy Shelley would write,

But She, whom prayers or tears then could not tame,  
Past, like a God throned on a winged planet,  
Whose burning plumes to tenfold swiftness fan it,  
Into the dreary cone of our life's shade...  
One stood on my path who seemed  
As like the glorious shape which I had dreamed,  
As is the Moon, whose changes ever run  
Into themselves, to the eternal Sun.

Shelley's interest in astronomy has now been studied extensively by many people. The Wordsworth era's interest in disease, preliminary theories of disease as to how diseases spread, etiologies, theories of transmission and prophylactic measures as well as geology are some of the sciences that figure in it. What we have looked at in the case of *Epipsychidion* is an interest in astronomy and the space sciences.

(Refer Slide Time: 4:34)

John Keats's "On First Looking into Chapman's Homer" and George Gordon Lord Byron's "Cain" also adopted and adapted astronomical images of planets, exploratory and contemporary instrumentation. Following is an extract from John Keats's "On First Looking into Chapman's Homer".

(Refer Slide Time: 4:54)

Then felt I like some watcher of the skies  
When a new planet swims into his ken.

Keats is directly referencing the use of telescopes in the discovery of distant planets. I would urge you to draw a parallel with the issues we discussed in the earlier lessons on empire. England, at this time, was engaging with distant parts of the world: Asia, China, South America, Africa and other places. England was dealing with materials, ideas, and cultures coming in from different parts of the globe.

Parallel to that is its engagement with the solar system and the world outside earth itself. So, think of it in this manner: there is this tiny island, and the poets and writers in this tiny island are looking outward, not just at themselves. They look outward at Asia, they look outward at Africa, but they also look outward at the larger universe. "I felt," as Keats says here, "like some watcher of the skies When a new planet swims into his ken". A new planet swimming "into his ken" is a direct reference to something coming into an astronomer's range of vision via a telescope.

Thus, we see that the English Romantic authors were clearly tracking developments in the sciences, especially in astronomy. We will look briefly at another set of sciences that play an important role in the Romantic imagination: geology and the earth sciences.

(Refer Slide Time: 6:26)

There was a considerable amount of interest in geology in this age as Noah Heringman's *Romantic Rocks, Aesthetic Geology* traces. As a science, geology was just coming into its own. But Wordsworth's *Resolution and Independence*, for example, developed the image of the huge stone.

As he says in this poem, “As a huge stone is sometimes seen to lie, Couched on the bald top of an eminence.” The tired body of the leech-gatherer in Wordsworth’s famous poem aligns with various objects such as clouds and wood in the course of the poem, and his speech is described in this way: “soon with this he other matter blended.” This is the language of scientific experimentation. As Noah Heringman argues, Wordsworth shows the old man as incorporated with the forms of nature. What is being imagined here are the mergers, assimilations and hybridization of different chemistries and different biologies.

In Coleridge’s “Kubla Khan”, the imagery of caverns and underground spaces proceeds, as critics like Frederick Burwick have argued, from an interest in the geological sciences of the period and constitute aesthetically what Burwick calls “a subterranean sublime”. Let us now look at a passage from arguably Coleridge’s most famous poem, “Kubla Khan”.

(Refer Slide Time: 7:45)

Where Alph, the sacred river, ran  
Through caverns measureless to man  
Through wood and dale the sacred river ran,  
Then reached the caverns measureless to man

The sacred river, sacred being the realm of the religious and the theological, moves through “caverns measureless to man”. Caverns measureless to man is a clear reference to the geological studies of rocks and rock formations.

(Refer Slide Time: 8:19)

Moving on, botany and theories of life influenced poems like Shelley’s “The Sensitive Plant”, and supported the Wordsworthian argument about the spirit of all material objects. Where there are discussions of life, naturally, medical science cannot be far behind. In medicine, Edward Jenner (1749-1823), the famous immunologist was experimenting with vaccination and his period overlaps with that of the Romantics. Coleridge and Southey proved Jenner’s most ardent campaigners in the periodical press. Numerous critics in the recent past, Tim Fulford, Debbie Lee,

and others have written on the Romantic interest in yellow fever, vaccination and other related issues.

Medical science at the time was also dealing with tropical diseases, mainly cholera and malaria. Why cholera and malaria? Note that malaria and cholera were tropical diseases. Englishmen going out to the colonies were coming back but many a times, they came back having suffered from or as carriers of cholera and malaria. The Englishmen who went out to the colonies into the distant parts of the world often came back carrying pathogens. Alongside china, pottery, tea, tobacco, all of which was manufactured in other parts of the world, disease was also entering England.

In other words, the English Romantics were also concerned about the fact that diseases from distant parts of the world were impinging upon the English immune system. It was not just the influence of the East and the tropics on their national economy, but also, pathogens from distant parts of the world were affecting the national immune system.

(Refer Slide Time: 10:14)

Alan Bewell's path-breaking work *Romanticism and Colonial Disease* (1999) demonstrates how Keats, Coleridge and Mary Shelley were all directly or indirectly negotiating with theories of disease that often left villages in England devoid of healthy young men. Alan Bewell refers to the "depopulation narratives" in these texts such as Wordsworth's "The Brothers" where entire villages had no young people left.

(Refer Slide Time: 10:42)

At this point, I would like to mention the fact that the first novel about a pandemic was also written by Mary Shelley during this time. Mary Shelley wrote the novel *The Last Man* which represents a pandemic that wipes out practically all mankind except for one last man surviving. In terms of science, the English Romantics had an interest in astronomy, botany, life sciences, medicine, geology, and practically every other scientific development of their time.

The important thing to realize is that the English Romantics were not only interested in the English countryside but also in the distant world and the distant world beyond earth. Just as materials, money, ideas and cultures entered England, diseases from these distant lands also entered England. Hence, English poets and authors had to engage with people who came back carrying diseases like malaria and cholera. It was at the same time that people like Edward Jenner were experimenting with vaccination.

So, in addition to imagining a country, the Romantics were also anxious about what Priscilla Wald in a study of invasion narratives in popular culture in the 20<sup>th</sup> century called “imagined immunities”. That is, it was not just the imagined community of England but the imagined immunity of English bodies and immunological borders that influenced and informed English writings of this particular period.

Now, as we noted in the beginning, it might seem odd and awkward to think of the English Romantics whom we have traditionally seen as interested in beauty and nature, as being interested in disease. But people have noted that central figures of the English Romantic pantheon are often associated with disease, such as the Ancient Mariner who returns looking “long, lank, and brown” which suggests some kind of skin ailment which he has contracted from his tropical voyages.

Clearly, the sciences had a huge impact on the English Romantics. This is something to be kept in mind when looking at texts like “Kubla Khan” with its reference to rocks, or Shelley’s “Mont Blanc” which is about mountains. Several aesthetic theories and imaginative discourses in this period were centered on science.

### **Further/ Recommended Readings**

Bewell, Alan. *Romanticism and Colonial Discourse*. John Hopkins UP, 1999.

Burwick, Frederick. "Romantic Sciences: British and Continental Thresholds". *A Concise Companion to Romanticism*, edited by Jon Kanchler, Wiley-Blackwell, 2009. 168-88.

Fulford, Tim and Debbie Lee. "The Jenneration of Disease: Vaccination, Romanticism, and Revolution". *Studies in Romanticism* Vol. 39.1, 2000. 139-163.

Heringman, Noah. *Romantic Rocks, Aesthetic Geology*. Cornell UP, 2004.

King-Hele, Desmond. *Shelley: His Thought and Work*. Farleigh Dickinson UP, 1971.

Lee, Debbie. "Yellow Fever and the Slave Trade: Coleridge's 'The Rime of the Ancient Mariner'". *ELH*, 65.3, 1998. 675-700.

Owens, Thomas. "Astronomy at Stowey: The Wordsworths and Coleridge". *The Wordsworth Circle*, Vol. 43.1, 2012. 25-29.