

Early history of the carbon cycle concept

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The carbon cycle is a central process on Earth, the element carbon is known to chemists and non chemists alike. But the carbon cycle is more than a planetary phenomenon, somehow a hallmark of our planet. The chemical and geological concepts and technics used today to study the carbon cycle are the fruits of a long, remarkable constructions that can be traced back to at least the early 18th century. I will present some of the early researches that led chemists to define for the first time carbon as an element, and to question how this element contributes to regulate the respirability, and therefore the composition of the atmosphere. Those reflexions are not just sidenotes in the works of prominent chemists such as A.L. Lavoisier, H. Davy H., or N.T. De Saussure. Understanding the regulatory mechanisms behind the apparent constancy of atmospheric composition was a major motivation for those chemists. This historical examination suggests that the conceptual roots of modern geochemistry may have emerged right at the birth of modern chemistry, and not much later as is generally assumed.