MOTION.ILLUSIONS.IM

The rocks that seemed to rise

In 1834 Robert Addams looked at the falling water, then at the rocks beside it.

Robert Addams, "An account of a peculiar optical phænomenon seen after having looked at a moving body," Philosophical Magazine, 3rd series, volume 5, number 29, 1834, page 373, wrote:

"Having steadfastly looked for a few seconds at a particular part of the cascade, admiring the confluence and decussation of the currents forming the liquid drapery of waters, and then suddenly directed my eyes to the left, to observe the vertical face of the sombre age-worn rocks immediately contiguous to the water-fall, I saw the rocky face as if in motion upwards, and with an apparent velocity equal to that of the descending water, which the moment before had prepared my eyes to behold this singular deception."

The official story	Official wording
The order	First a moving body — the cascade, for a few seconds — then the still rock face, to the left, immediately beside the fall.
What he saw	The rocky face "as if in motion upwards," with an apparent speed equal to that of the descending water.
His own word	He called it "this singular deception." The rocks were not rising. The falling water had prepared his eyes to see them that way.
What this sheet does not add	A height for the fall, a viewing platform, or a day for the visit. A file caption that mentions "a fall of 165 feet" is not taken from this paper, and is not used as a fact here.

A short quiz

1. After looking at the cascade, which way did the rocks seem to move?
2. How long, in Addams's wording, had he looked at a particular part of the fall?
3. Does this sheet treat a file caption of 165 feet as Addams's official height?

Answers. Upwards, at the apparent speed of the descending water. A few seconds. No — that figure is not taken from the 1834 paper.

Wording from Robert Addams, Philosophical Magazine, 1834, pp. 373–374, which is in the public domain. Checked 18 November 2026. motion.illusions.im is independent of the journals and museums named on the website. Typographic sheet: no photographs inside.