by the hopes of soon getting some tea (it was a quarter to twelve P.M.), and excited by the critical acumen and antiquarian allusions and philological lore poured forth by the learned doctor, who, after a lengthened and fearful exposition of the doctrines and discipline of the glacial theory, concluded—not, as we expected, by lowering his voice to a well-bred whisper, 'Now to,' &c.—but with a look and tone of triumph he pronounced upon his opponents who dared to question the orthodoxy of the scratches, and grooves, and polished surfaces of the glacial mountains (when they should come to be d——d) the pains of eternal itch, without the privilege of scratching!

On November 18, 1840, a paper 'On the Geological Evidence of the Former Existence of Glaciers in Forfarshire,' by Charles Lyell, was commenced, and concluded on December 2. Then the second part of Dr. Buckland's 'Memoir on the Evidence of Glaciers in Scotland and the North of England' was read.[1]

In the former part of his paper Dr. Buckland mentioned that Maclaren[2] had found a polished surface of rock near the south-west base of Arthur's Seat; and he referred also to early observations of furrows that had been sketched by Sir James Hall.[3] He now discussed the distribution of Shap Fell boulders eastward across Stainmoor Forest into the Tees Valley, and maintained that the difficulties of transport were entirely removed by the application of the glacial theory.

Lyell similarly found that many of his difficulties were removed, and he was convinced that glaciers existed for a long time in the Grampians, and extended to the low country. The conditions differed from those of Switzerland, and he looked to Kerguelen's Land, and other tracts on the borders of Antarctic regions, for the nearest

[1] *Proc. Geol. Soc.* iii. pp. 337, 345, &c.

[2] Charles Maclaren (1782–1866) was for many years editor of the *Scotsman*, and he was author of 'A Sketch of the Geology of Fife and the Lothians,' 1839.

[3] Sir James Hall (1761–1832) was the first to observe and describe the striated rock-surfaces which are now recognised as the work of ice. He attributed them to gigantic bodies of water, sweeping over the face of the country. *Trans. Roy. Soc. Edin.* vii. 1815, p. 139. He initiated investigations in experimental geology, relating to the fusion, crystallisation, and contortion of rocks. Some of his apparatus and specimens are in the Museum of the Society (see p. 250).