'Sprites' in 1893

Browsing recently in the pages of *Nature* for 1893, the undersigned chanced on the following letter containing the most striking description of 'sprites' he has yet seen. The letter[1] was written a good century before this intriguing phenomenon of atmospheric electricity was scientifically recognized, and is perhaps not widely known, so may be of interest to other readers of *The Observatory*.

"Thunderstorms and Auroral Phenomena.

I am residing in tropical Queensland, lat.21° S., and consequently am not likely to see any auroral phenomena, particularly in the middle of our hot and rainy season; but last night between 8 and 9 p.m. there occurred the following remarkable appearances, which were seen by me and several others.

There was a sharp thunderstorm with incessant lightning visible on the southern horizon, occupying a width of 10° and an altitude of from 5° to 10° above the horizon, probably from 80 to 100 miles off.

But for the distant thunderclouds the sky was clear and starlight, with a few light cirrus clouds drifting before the north wind.

I was sitting on the lawn watching the distant flashes, when suddenly a patch or cloud of rosy light — 5° to 6° in diameter — rose up from above the thunderstorm and mounted upwards, disappearing at an elevation of from 40° – 45°. There were about twenty to twenty-five of these patches in the course of half an hour, sometimes three or four in quick succession; they took from one to two seconds to mount, and were not associated with any particular flash; the rosy colour contrasted strangely with the silvery light of Nubecula Major just above. There were also occasional streamers, sometimes bifurcated, of 2° in breadth, which shot up in the same way as the auroral streamers, which I have seen both in the arctic and antarctic zones.

Auroral phenomena are known to be electrical manifestations, but here were the same phenomena exhibited in connection with a thunderstorm in the tropics. Thinking this phase of electrical action worthy of note, I send you this account and enclose my card.

J. Ewen Davidson.

Branscombe, Mackay, Queensland, February 5th.

P.S. — The thunderstorm, patches of light, and streamers were distinctly *connected*; it was not a case of an ordinary aurora, with a thunderstorm interposed."

A classic eyewitness report, indeed, of a beautiful phenomenon very rarely so well seen. The letter writer, J. E. Davidson (1841–1923) was a well-known English amateur astronomer, an early life-member of the Astronomical Society of the Pacific, elected in 1890, and most famous as discoverer of Comet Davidson 1889, as well as independently of Comet Holmes 1892. He returned from Australia in 1900 and lived at 98 Banbury Road, Oxford, until his death, where some of his scientific books and apparatus still remained until dispersed at a house-contents auction in the 1980s.

Yours faithfully,
Christopher Taylor

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Reference

(1) *Nature*, **47**, 582, 1893.

REVIEWS

Resolving the Rise and Fall of Star Formation in Galaxies, edited by Tony Wong & Woong-Tae Kim (Cambridge University Press), 2023. Pp. 333, 25 × 18 cm. Price £98/$130 (hardbound; ISBN 978 1 009 35295 6).

This volume is the proceedings of IAU Symposium 373, held in Busan in the Republic of Korea in 2022 August as part of the XXXI General Assembly. According to the preface there were 21 invited talks, 36 contributed talks, 78 e-posters, and 78 e-talks at the symposium. This has translated into 71 printed papers — many of them very interesting — split into five (somewhat overlapping) sections: 'Scales of Star Formation: From Molecular Cores to Galaxies' (19 contributions), 'Sustaining Star Formation: Gas Conditions & Environment' (also 19), 'The Decline of Star Formation: Feedback, Fuel Shortage or Inefficiency' (9), 'The Rise and Fall of Star Formation Across Cosmic Time' (14), and 'Regulation of Star Formation and the Evolution of Galaxies' (10). The organizers' intention was to draw together work on the full range of scales, and they certainly achieved that, though it would be interesting to know exactly how much those participants primarily involved with large-scale surveys or cosmological simulations were able to take away from papers on, say, ultra-compact H II regions or hot molecular cores (and *vice versa* of course). A conference overview or summary would have been useful. A plus point of the volume is the wide geographical spread of institutions and individuals among the contributors, but a negative is that many of the results had already been published (in more detail) in journals prior to the meeting and more will have appeared by now. The latter point raises the wider question of the on-going value of such volumes. With journals moving towards on-line only, why does a conference have to have a printed book (apart from them being pleasant souvenirs for attendees)? Does anyone seek them out and search them for new work anymore, or simply check astro-ph? — Steve Phillipps.