it had carried on to the pile some 200 or 300 feet away. I infer that the first ball, clearly of high energy, induced in some way the formation of the second, low energy ball that emerged from our fireplace.

Jennison's description corresponds to my memory of the indoor ball. It is remarkable that the different surroundings should produce or be accompanied by similar balls: one inside a metal aircraft moving within an electrically disturbed cloud, and the other inside a wooden cottage with a high energy ball moving overhead.

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¹ Jennison, R. C., *Nature*, **224**, 895 (1969).

JENNISON'S¹ most unusual ball lightning observation brings several questions to mind: (a) Was the ball observed by the crew and other passengers, and if so, what were their reactions? (b) Did the crew in the pilot's cabin report any damage to or unusual behaviour of the electrical equipment? (c) Where and how did the flight of the ball terminate? (d) Was the airplane interior pressurized, and at what approximate altitude was the plane flying? (e) Why did the observer wait more than six years to report on such an interesting phenomenon?

I would like to add that the antenna feed is a possible access route for the lightning discharge into the airplane.

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¹ Jennison, R. C., *Nature*, **224**, 895 (1969).

BALL lightning is a rare phenomenon, which, because of its nature, is virtually impossible to record objectively. Carefully documented reports such as the one by Jennison¹ are therefore valuable.

A similar incident occurred in the Meteorological Office, Boscombe Down, Wiltshire, in the northern summer of 1938. There was a vivid flash with simultaneous thunder. It was assumed that the Dines pressure-tube anemometer, which passed through the roof and was supported by four heavy steel supports embedded in the floor, was struck.

Immediately after the lightning flash, a brilliant white sphere, with a diameter of about 20 cm and diffuse edges, was observed hovering near the anemometer supports. The diameter, symmetry and absence of structure agree with Jennison's description. No heat radiation was noted. The motion differed from Jennison's case. The object followed an irregular course; it travelled from one anemometer leg to the other, and then from the anemometer to a radio receiver/transmitter which was being operated at the time. The distance from the anemometer to the radio set would be about 2 m, and the height above the floor about 1.5 m. The object disappeared as it reached the radio set, perhaps 3–5 s after its appearance.

The radio operator witnessed the incident and generally agreed with the motion and other properties already described.

Although this report is thirty years old, it is believed to be reliable.

It is possible that such occurrences are attributable to physiological or psychological origin; the close agreement between different observers would not necessarily detract

from this suggestion. Alternatively, photographs, claimed to be of ball lightning, have appeared in the popular press. Whatever the cause, it seems desirable to place the observation on record.

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¹ Jennison, R. C., *Nature*, **224**, 895 (1969).

Late Quaternary Chronology of the Nakuru-Elmenteita Basin, Kenya

IN 1967¹ I gave details of a shoreline of a former lake in the Nakuru-Elmenteita basin of Kenya at an altitude of about 6,370 feet above sea level, or about 600 feet above the present surface of Lake Nakuru. It was suggested then that, although this shoreline might still qualify to be called "Gamblian" after the formerly accepted nomenclature for the late Quaternary in East Africa², it is necessary to be extremely cautious in using this nomenclature, because its usage involves assumptions of dating and correlation which are not borne out by the results of recent fieldwork.

Some further evidence from the Nakuru-Elmenteita basin has been obtained in the form of a radiocarbon date for material which seems to have close links with the 600 foot shoreline. The dated sample consists of the shells of Mollusca which were found *in situ* in a matrix of pale buff diatomaceous silt. The exposure is at an altitude of 6,188–6,192 feet above sea level, or more than 400 feet above the present surface of Lake Nakuru. The material is clearly of lacustrine origin, both from the character of the silt, and from the species of Mollusca which have been identified in it.

The shells have been dated by Dr D. Thurber of Lamont Geological Observatory. The age obtained for the shells using the 5,585 half-life for radiocarbon and assuming the initial ¹⁴C/¹²C ratio to be atmospheric was $9,650 \pm 250$ years before 1950 (L-1201). Dr Thurber also analysed the ¹⁴C/¹²C ratio in samples of water from Lakes Nakuru and Elmenteita and has informed me that no adjustment to the above date need be made on the basis of these analyses.

Dr B. W. Sparks of the Cambridge University Department of Geography has kindly studied another sample of the shells and lists the following species: *Corbicula africana* (Krauss) (most common); *Melanoides tuberculata* (Müller) (second in abundance); and very small numbers of *Pisidium* sp., *Burnupia* sp., *Bulinus* sp., *Anisus natalensis* (Krauss) and *Biomphalaria* sp. These are all freshwater species and there were no land snails in the samples. Sparks suggested that these snails, in particular *Corbicula* and *Melanoides*, are indicative of a lake of appreciable size rather than of a small perennial or temporary body of water. It is not possible from this sample to obtain a precise indication of the depth of water or length of time implied by the deposit.

The only other record of Mollusca from the Nakuru-Elmenteita basin is that by Leakey²; he described shells from various localities, including Gamble's Cave. The Gamble's Cave shells included the following species: *Lymnaea elmenteitensis* ?Smith, (rare); *Bulinus* sp. (fragments); *Melanoides tuberculata* (Müll.) (very abundant); and *Corbicula africana* (Krs.). The list of Mollusca was prepared by M. Connolly and is given in Appendix D of Leakey's book². The shells are described as being obtained "from the beach gravel at 510 feet above present lake level in Gamble's Cave II".

There seem to be no more recent reports of Mollusca from this basin, and I was only able to find one occurrence