

An early geological map of part of Charnwood Forest

During salvage of part of the teaching collections of the defunct Geology Department of Wigan Mining and Technical College, a hand-drawn and hand-coloured geological map of the northwestern corner of Charnwood Forest has come to light and is reproduced here as a matter of historical record.

The area was mapped by Drs Bernard Stracey and Frederick Bennett before World War I. There is a pencilled note in the margin “from Dr Bennett January 1917”, presumably dating from when he donated it to the Wigan Mining College but it is not known why he did so. A much reduced black and white version was published in the report of a 1911 excursion in the Proceedings of the Geologists’ Association. The coloured map is 45 x 41 cm whereas the reduced version is only 12 x 10 cm.

Drs Stracey and Bennett may thus be deduced to have done their mapping before 1911. Watts had mapped Charnwood a few years earlier, c.1896-1900; he gave a short account of the geology in the Geologists Association Jubilee volume of 1910 (enlarged but not fully updated in his book of 1947). However, Stracey and Bennett’s details of the geology differ considerably from Watts’ map in that the shape of outcrops is different and there are many more faults, particularly in the Warren Hills area. The Whitwick Quarry is not shown on Stracey and Bennett’s map; only a small Carrs Quarry appears near Thringstone, within an outcrop of hornfelsed Woodhouse Beds.

Though not depicted on the map, the Peldar Tor quarry is mentioned in the Geologists’ Association excursion report, which is mainly concerned with the petrology and origin of the igneous rocks, then described as various types of “porphyroid”. The Association members seem to have been uncertain as to whether they were extrusive lavas or intrusive sills or both. Watts (1910) thought that the porphyroids had been intruded into agglomerates with resultant mixing. Bonney (1915) regarded the porphyroids as pyroclastic flow breccias, *i.e.* extrusive. Bennett, together with Lowe, Gregory and Jones, provided a somewhat different map of the whole of Charnwood Forest in 1928. Re-mapping by the British Geological Survey in the late 20th century indicated that Bardon Hill consisted of andesites and dacites, variably massive or intensely brecciated, sometimes porphyritic, interpreted as volcanic domes emplaced at a shallow depth (Worssam & Old, 1988). The volcanic processes forming a similar complex near Whitwick were described by Carney (2000). The Bardon Quarry is just off the southern edge of Stracey and Bennett’s map, and was not visited on the 1911 excursion. Both complexes are depicted on the Charnwood Forest Special Sheet (Ambrose *et al.*, 2007).

Though shown on Stracey and Bennett’s map, the faults were barely mentioned in their excursion report. Local offsetting of the Slate Agglomerate by close-set faults was inferred from dislocations along the outcrop along the Warren Hills, but other faults were concealed by Triassic and Pleistocene deposits and were inferred by misaligned outcrops of distinctive rock types.

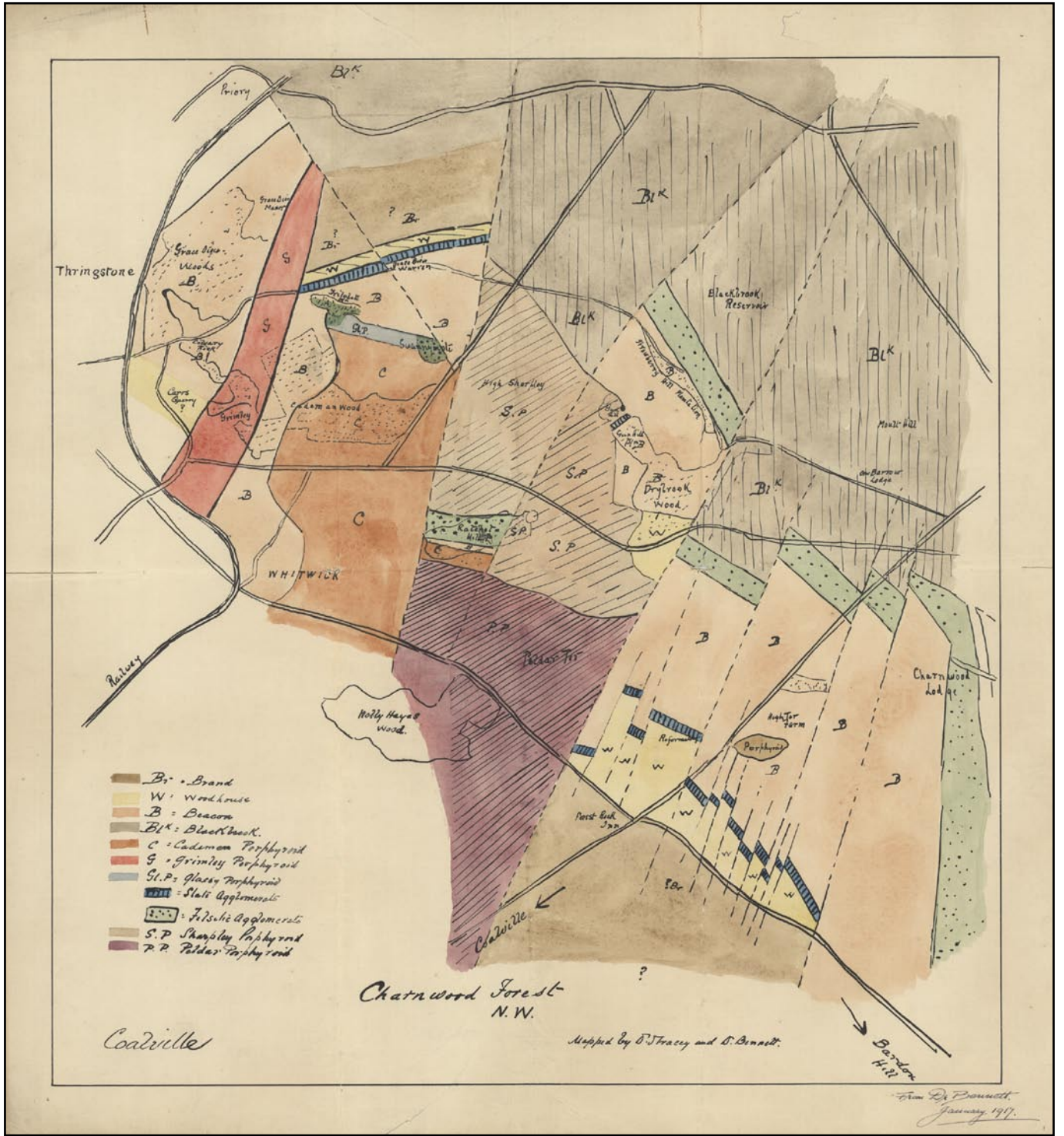
Stracey and Bennett were both medical men and geology was their hobby: they are not known to have had any formal training in the subject. Stracey (1874-1944) was born in Edinburgh and was in Leicester by 1899. His specialty was in psychiatry and he published on the subject as early as 1901. He was known as “the shell man” and contributed to the Journal of Molluscan Studies. He lived at 16 New Walk. During World War I he was Surgeon Lieutenant in the 5th Northern General Hospital, later the Fielding Johnson Building of the University of Leicester. As his name does not appear in any post-1918 literature he may have left the area. He died in Switzerland in 1944, presumably isolated there during World War II. Bennett (1862-1930) was born in Leicester and was a leading medical practitioner and surgeon in the city, living on Regent Road. Among the founders of the University of Leicester, his name is perpetuated in the Bennett Building and Chair of Geology. As noted above Bennett and colleagues published their own map in 1928. Both Stracey and Bennett made numerous thin sections of Charnwood rocks and some of these were donated to Leicester City Museum where they remain to this day.

Stracey and Bennett published other notes on Charnwood geology, some jointly (1906-7) and some independently. Both their mapping and that by Watts were done long before the development of the modern Bardon Quarry which would have thrown light on their problems.

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The geological map of the northwestern part of Charnwood Forest, prepared by Bernard Stracey and Frederick Bennett in the early 1900s.